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Western Arts Association Bulletin

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REPORT OF THE INDIANAPOLIS CONVENTION

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5215 College Avenue
Indianapolis, Indiana

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1928

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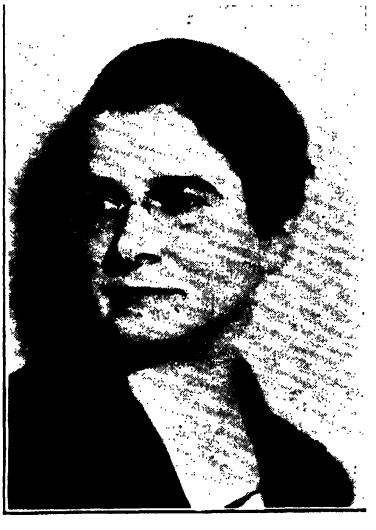

CHARLOTTE R. PARTRIDGE
Auditor
Director of Layton School of Art
and Layton Art Gallery
Milwaukee, Wisconsin

Western Arts Association
Officers and Standing Committees, 1927-1928

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PROGRAM

of the

THIRTY-FOURTH ANNUAL CONVENTION

of the

WESTERN ARTS ASSOCIATION

May 2-3-4-5, 1928

INDIANAPOLIS, INDIANA

OFFICIAL OPENING

WEDNESDAY MORNING, MAY 2, NINE O'CLOCK

Opening of Registration Desk, Mezzanine Floor, Claypool Hotel

Filing of Railroad Certificates

Opening of School Exhibits in the U. S. Armory and Art Institute

Distribution of Souvenirs at Material and Equipment Exhibit in the U. S. Armory

Special Demonstrations in the Art, Home Economics and Manual Training Departments of Grade and High Schools.

WEDNESDAY AFTERNOON, MAY 2, TWO O'CLOCK

SECTION MEETINGS

ART ROUND TABLE—John Herron Art Institute, Sixteenth and Pennsylvania Streets

Alfred G. Pelikan, Chairman, Director Milwaukee Art Institute, Milwaukee, Wisconsin

Topic: "An Evaluation of Present Aims and Tendencies in Art Education"

C. Valentine Kirby, State Director of Art, Pennsylvania

Topic: "What Art Is Doing for the Linoleum Industry"

Mrs. Hazel Dell Brown, Armstrong Cork Company, Lancaster, Pennsylvania

Topic: "A Supervisor and Her Problems"

Grace Stackhouse, Supervisor of Art, Parma, Ohio

WEDNESDAY AFTERNOON, TWO O'CLOCK

HOME ECONOMICS ROUND TABLE—Ladies' Room, U. S. Armory

Julia R. Grady, Chairman, Supervisor of Art Department, Madison Vocational School, Madison, Wisconsin

Topic: "How Art Is Being Related to Subject Matter in Schools Today"

Joanne M. Hansen, Head of Applied Art Department, Iowa State College, Ames, Iowa

Topic: "The Importance of Accessories in the Home"

Helen Bosard, Critic Teacher, Purdue University, Lafayette, Indiana

Topic: "Methods of Teaching Art in Clothing"

Ivah M. Rhyan, Head of Home Economics Department, Indiana State Normal School, Terre Haute, Indiana

MANUAL TRAINING ROUND TABLE—U. S. Armory

L. R. Abbott, Chairman, Director of Manual Training and Industrial Education, Grand Rapids, Michigan

Topic: "Some Recent Changes in the Manual Arts Problem'

Dr. William T. Bawden, Associate Superintendent of Schools Tulsa, Oklahoma

Topic: "Testing in Manual Arts"

Roy R. Van Duzee, Supervisor of Industrial Arts, West Allis, Wisconsin

Topic: "Some New Problems of the Manual Arts Teacher"

Albert F. Siepert, Dean, Bradley Polytechnic Institute, Peoria, Illinois

VOCATIONAL ROUND TABLE—U. S. Armory

W. Harold Gossett, Chairman, Assistant Director of Vocational Education and Manual Training, Indianapolis, Indiana

Topic: "To What Extent Should Practical Production Problems Be Carried On in Vocational Classes, and Can They Be Carried On Without Exploiting the Boy and Also Being Unfair to the Tradesman"

G. F. Weber, Director, Vocational Educational Department South Bend, Indiana

R. R. Kintigh, Instructor Vocational Auto Mechanics, Goshen, Indiana

Leader of Discussion

Ammon Swope, Associate Professor of Trade and Industrial Education, Purdue University, Lafayette, Indiana

PRINTING ROUND TABLE—Cropsey Memorial, Public Library, Pennsylvania and St. Clair Streets

Lester A. Reppert, Chairman, Director of the Chicago School of Printing, Chicago, Illinois

Topic: "The Attitude of the Printing Industry Toward Printing Education"

THE CRAFTSMAN—John H. Chambers, Director, Bureau of Education, International Typographical Union, Indianapolis, Indiana

THE EMPLOYER—Fred J. Hartman, Director, Department of Education, United Typothetae of America, Chicago, Illinois

THE MANUFACTURER—Thomas Knapp, Supervisor of Instruction, Mergenthaler Linotype Company, Chicago, Illinois

LEADER OF DISCUSSION—Ralph W. Polk, Head of Printing Department, Cass Technical High School, Detroit, Michigan

WEDNESDAY AFTERNOON, FOUR THIRTY O'CLOCK

PAGEANT

Sculpture Court—John Herron Art Institute

Presented by the Students of the John Herron Art School

WEDNESDAY EVENING, MAY 2, EIGHT O'CLOCK

GENERAL SESSION

ASSEMBLY ROOM—CLAYPOOL HOTEL

Special Admission Ticket or Membership Badge Will Be Required at the Door

MUSIC—Emmerich Manual Training High School Musical Organizations. Harold W. Winslow, Director

CALL TO ORDER—Harry E. Wood, Chairman Local Committees

ADDRESS OF WELCOME—Charles F. Miller, Superintendent of the Indianapolis Schools

PRESIDENT'S ADDRESS—George S. Dutch, Head of Department of Art, George Peabody College for Teachers, Nashville, Tennessee.

ADDRESS—"Art As a Constructive Force in Education," Leon L. Winslow, Director of Art Education, Baltimore, Maryland.

ANNOUNCEMENTS, APPOINTMENT OF COMMITTEES AND ELECTION OF NOMINATION COMMITTEE

THURSDAY MORNING, MAY 3, SEVEN O'CLOCK

BREAKFASTS

ART TEACHERS AND SUPERVISORS.....Claypool Hotel
INDUSTRIAL ART TEACHERS AND SUPERVISORS.....Lincoln Hotel
HOME ECONOMICS TEACHERS AND SUPERVISORS.....Lincoln Hotel
PRINTING TEACHERS AND PRINTERS.....Lincoln Hotel
VOCATIONAL DIRECTORS AND TEACHERS.....Y. M. C. A.

THURSDAY MORNING, MAY 3, NINE O'CLOCK

GENERAL SESSION

CALEB MILLS HALL—SHORTRIDGE HIGH SCHOOL
NORTH AND PENNSYLVANIA STREETS

Admission by Ticket or Membership Badge

MUSIC—Shortridge High School Musical Organizations, Will Wise, Directing

ADDRESS—"The Arts in Education." M. M. Proffitt, Specialist in Industrial Education, Washington, D. C.

ADDRESS—"Experiences of a Salesman of Art Education." C. Valentine Kirby, Director of Art, Department of Public Instruction, Harrisburg, Pennsylvania

ADDRESS—"Art as Related to the Unpretentious Home." Joanna Hansen, Head, Applied Arts Department, Iowa State College, Ames, Iowa

TWELVE O'CLOCK NOON

LUNCHEONS

Secure Tickets at Registration Desk

PRATT INSTITUTE—Claypool Hotel, Pink Room.
ART INSTITUTE OF CHICAGO—Claypool Hotel, Empire Room.
INDIANA VOCATIONAL DIRECTORS—Lincoln Hotel, Parlor E.
HERRON ART INSTITUTE ALUMNI.
SCHOOL OF EDUCATION, CHICAGO UNIVERSITY AND PEABODY COLLEGE.
BRADLEY POLYTECHNIC INSTITUTE—Claypool Hotel, Parlor B.
LAYTON SCHOOL OF ART, CHURCH SCHOOL OF ART } Claypool Hotel, English Room.

THURSDAY AFTERNOON, MAY 3, TWO O'CLOCK

SECTION MEETINGS AND VISITS

JOINT ROUND TABLE—Manual Training and Vocational Education—U. S. Armory. Messrs. Abbott and Gossett, Chairmen

Topic: "Measuring Our Product." H. J. Van Westrienen, Director of Vocational Education, Hamtramck, Michigan

Topic: "What Effect Has the Advent of Vocational Education Had on the Manual Training Program." M. M. Proffitt, Department of Interior, Bureau of Education, Washington, D. C.

Topic: "Industrial Photography, an Art or Vocation." Leonard A. Williams, Director of Industrial Education, State Teachers' College, St. Cloud, Minnesota

Topic: "The Place of Manual Training Now That We Have Vocational Education With Us." Dr. William H. Stone, Chairman of Department of Industrial Arts Education, Ohio State University, Columbus, Ohio

Leader of Discussion, H. G. McComb, Associate Professor of Trade and Industrial Education, Purdue University, Lafayette, Indiana

VISITING—Schools, Art Galleries and Exhibits

THURSDAY EVENING, MAY 3, SIX THIRTY O'CLOCK

DINNER AND DANCE

RILEY ROOM, CLAYPOOL HOTEL

FRIDAY MORNING, MAY 4, NINE O'CLOCK

SECTION MEETINGS AND VISITS

JOINT ROUND TABLE—Art and Manual Training—John Herron Art Institute. Messrs. Pelikan and Abbott, Joint Chairmen

Topic: "The Need for Modern Ideas in the Industrial Arts," illustrated with slides. Alfred G. Pelikan, Director of Art, Milwaukee, Wisconsin

Topic: "Art Is Industrial as Well as Fine." Leon L. Winslow, Director of Art Education, Baltimore, Maryland.

VISITING—Schools, Art Galleries, Exhibits, Home Economics, Vocational and Printing Groups

LUNCHEON

FRIDAY, TWELVE O'CLOCK, NOON

BALL TEACHERS' COLLEGE—Lincoln Hotel, Parlor E

FRIDAY AFTERNOON, MAY 4, TWO O'CLOCK

SECTION MEETINGS AND VISITS

JOINT ROUND TABLE—Art and Printing—John Herron Art Institute. Messrs. Pelikan and Reppert, Joint Chairmen

Topic: "Art in Printing." J. L. Frazier, Editor, the Inland Printer, Chicago, Illinois

Leader of Discussion—Frederick Polley, Department of Art, Arsenal Technical High School, Indianapolis, Indiana

Topic: "The Relation of the Printing and Art Departments"
The Printing Instructor—C. W. Hague, Head of Printing Department, Stout Institute, Menominee, Wisconsin

The Art Instructor—Otto Hankhammer, Instructor of Art, State Teachers College, Pittsburg, Kansas

Leader of Discussion—E. E. Sheldon, Training Department, Lakeside Press, Chicago, Illinois

VISITING—Exhibits and Schools, Manual Training and Vocational Groups

FRIDAY AFTERNOON, MAY 4, TWO O'CLOCK

U. S. ARMORY

JOINT ROUND TABLE—Home Economics and Art. Miss Grady and Mr. Pelikan, Joint Chairmen

Topic: "Dress." Fashion show to supplement talk. Miss Anna Hong, Director of Art, College of Liberal Arts, Northwestern University.

Topic: "Art Education for the Development of Taste." Mr. Leon L. Winslow, Director of Art Education, Baltimore, Maryland.

Topic: "Psychology of Color." Mr. William H. Varnum, Associate Professor, Applied Arts Department, University of Wisconsin.

VISITING—Exhibits and Schools, Manual Training and Vocational Groups

FRIDAY EVENING, MAY 4, EIGHT O'CLOCK

ASSEMBLY ROOM—CLAYPOOL HOTEL

GENERAL SESSION

MUSIC—Arsenal Technical High School Musical Organizations. Elizabeth G. Kaltz, Director

ADDRESS—"Intellectual Values in Arts Education." William H. Stone, Chairman of Department of Industrial Arts Education, Ohio State University, Columbus, Ohio

ADDRESS—"The Mental Slant of a Real Teacher." Milo H. Stuart, Principal, Arsenal Technical Schools, Indianapolis, Ind.

SATURDAY MORNING, MAY 5, NINE O'CLOCK

ASSEMBLY ROOM—CLAYPOOL HOTEL

GENERAL SESSION

MUSIC—Special Musical Numbers. Music Department, Indianapolis Public Schools

AWARDING OF PRIZES—By Material and Equipment Exhibitors

ADDRESS—Frank D. Slutz, Director of the Moraine Park School, Dayton, Ohio

REPORT OF "FEDERATED COUNCIL ON ART EDUCATION"—Mary C. Scovel, Head-Teacher Training Department, Art Institute, Chicago, Illinois

BUSINESS MEETING

Address of Welcome

CHARLES F. MILLER
Superintendent of the Indianapolis Schools

MR. PRESIDENT, Members of the Western Arts Association and Fellow Teachers: You probably are familiar with the story of the man who, visiting a large city, stepped into the administration building of the public schools. He looked around for a little while and finally wended his way to the information desk and began to ask questions of the girl as to the particular duties of the various persons he saw in the buildings, as to the duties of the girls at the telephone desk, and those who were using the typewriter, and this particular individual who came hurrying in, pointed out possibly as a supervisor of music, a supervisor of vocational education, and that man with that worried look, the high school principal, and that other, an assistant superintendent, and finally, casting his eyes around he noticed an individual seated at a desk, and he said, "What does that man do?"

"Oh, he doesn't do anything. He is the superintendent."

Now the superintendent in Indianapolis it seems has certain perfunctory duties to perform. He is to preside occasionally at banquets, act as toastmaster, be in the receiving line and introduce everybody that passes by, and occasionally when educational conventions come to the city, he is to speak a word of welcome, and so I am glad in the performance of that duty, to welcome the Western Arts Association to Indianapolis. We are doubly indebted to you for, with your coming, there have come the joys of spring and the sunshine of May, and we hope that this beautiful day is but the augur of the great week that is here before you.

We speak of Indianapolis as the City Beautiful, and we want you to get that impression of our city, to ride along its boulevards, through its magnificent parks; see its beautiful dwellings, not only beautiful dwellings so far as the exterior appearance is concerned, but when you get upon the inside, beautiful homes as well.

When I think of the education of this day and recall that of my boyhood, it seems to me that we are living in almost a miraculous age. Fifty years ago such a convention as this was not among the probabilities. We have made wonderful strides in education; our high school of today is a more liberal education than that of the college of fifty years ago, and our education, instead of going to those who could train their minds along some one particular direction, possibly in literature, in mathematics, in the physical sciences or something of that kind, by the development of vocational education such as represented by this great body, has been able to touch practically every boy and girl; and so, in this day we look upon education not as it is sometimes defined as "a preparation for living," but rather

that education is living; living day by day in such a way that we may add joy, peace and comfort to those around about us. We look upon education as in a great measure taking the drudgery out of toil. The educated farmer, as he walks back and forth across his fields, sees something more in the growing corn at his feet than the dollars and cents that it will put in his pocket. The trained carpenter, as he stands at his bench and watches the shavings curl gracefully about his feet, sees something more than just that piece of timber upon his bench beside him.

The masterful engineer, as he steps into his engine and seizes the throttle, sees something more than a mere piece of wood, of iron and steel. To him it becomes almost a living, breathing thing, pulsating with life and energy; and the busy housewife, as she goes about her daily tasks, feels her work lighter because her mind can dwell upon the things that she has learned and those things that have become a part of herself.

In this wonderful education of today, along with the trained mind, we have the trained hand, and I care not what that hand may be trained to do, whether it is the hand that may guide the plane, or wield the anvil, or possibly work at the desk with the machine, or transfer upon the canvas the azure blue of the heavens, or the translucent blue of the water, or paint upon the canvas the vivid flashes of the lightning, or catch the whirling of the water as it is swept by the tornado, or the gentle leaves of the trees as they sway gracefully to and fro.

I care not what it may be, it means that we are developing in this country today a great system of education that can only mean that we are increasing day by day the opportunities for better and higher living, that we are making for better homes, for better lives, for better men and women, for better citizens, and after all, that is the great thing in which we all are especially interested. We are interested not so much in more laws in this country of ours today, as we are interested in better citizens, and everything that tends to increase the degree of citizenship, to place it upon a higher plane, to raise the dead level upon which we seem to have fallen; that is the particular thing in which we are especially interested.

It is too such bodies of men and women as this that we must look for guidance for a great per cent of our young manhood and young womanhood, and so it is with extreme pleasure that I bid you welcome to our beautiful city, beautiful in many ways. We bid you welcome to our schools, splendid in themselves; we bid you welcome to visit our vocational department. I think it is wisely directed, none better, under the leadership of our Harry E. Wood, and I am sure that the teachers of Indianapolis are ready and willing to do everything in their power to make your stay with us pleasant and profitable. Again I bid you welcome.

President's Address
Professionalizing Our Profession

GEORGE S. DUTCH
Department of Fine Arts, George Peabody College for Teachers
Nashville, Tennessee

SPEAKING for the members of the Western Arts Association, I would say that we count ourselves altogether fortunate in our acceptance of your invitation to make Indianapolis this years's convention city. Already we have sensed the extensive and adequate preparations you have made for the success of our convention. We know that faithful local committees have been untiring in their efforts to have everything planned and ready for the various features of our program. We can only hope that as the convention continues you may realize how much all of us are thoroughly enjoying Indianapolis hospitality.

It has been twenty years since we held a convention in Indianapolis, and our records show only one other meeting here,—in 1896—, three years after the founding of our association. Staying away from such an attractive city for twenty years gives sufficient excuse for an educational glance over that period of time. I merely wish to bring back to your attention some of the movements that held the stage for a time during the past twenty or thirty years, so that we may have a better erspective of our present-day situation.

This review is best presented through an article of several years ago called "Ebb and Flow," by my colleague, Dr. Charles A. McMurry.* Dr. McMurry, now in his fifty-second year of active service as an educator, has the advantage of first-hand contacts with the movements he discusses. "We have witnessed, in our time," he says, "a number of strong educational movements which have swept over the country like tidal waves. One after another they have engulfed us and swept us along with their current. The more strinking features of our recent educational history are embodied in these reform movements." In his paper he describes "five of these propagandist upheavals which have disturbed our serenity and set things agog."

I will simply name the five movements as he gives them without taking time to brief his discussion of each. "The first was the literary revival—a modern renaissance—the warm and hearty acceptance into the common school of the famed literary products of the world . . . . A second powerful propagandist advance in education was a confident and enthusiastic rush into the fields of natural science. . . . A third forward lunge in progressive education is seen in the recent

*McMurry, Charles A. "Ebb and Flow." Peabody Journal of Education, 1:63-68, September, 1923.

effort to exploit those twin subjects, geograph and history . . . . Fourth, one of the most aggressive and sustained movements in modern education has been the broad survey and layout of courses in industrial and household arts. . . . The fifth propulsive movement toward educational betterment lies in the direction of good health and physical welfare. . . .

"Like a tidal wave, each of these movements (and, indeed, some others) has swept the land, has exhibited for a time a strong and wise enthusiasm, only to wane or subside when some new movement came on apace. We may gaze in retrospect upon this whole series of efforts and become fully awake to the fact that in them the school world has had five really great dreams of what education might and ought to be."

Allow me to go back and give you Dr. McMurry's discussion of the industrial and household arts. "The original cogent argument in support of these studies was their manifest utility—their complete dominance in the pressing affairs of daily life. They develop and emphasize usable knowledge in home duties and in the universal trades and occupations. Manual training and shop work develop also physical and motor skill, which are of prime importance both in mental and physical growth.

"This argument in favor of increased skill in the fundamental arts of life, upon which civilization rests, gained a strong hold on the practical American mind.

"More recently this utility argument has been reenforced by a strong aesthetic principle which, in combination with the bread-and-butter view, gives it unusual force. The industrial and household arts have lately formed a close partnership with the fine arts, with drawing and design, and have become thereby the most favored field for the application of the fine arts. Every useful project worked out becomes an aesthetic achievement. This superior principle of aesthetic design, entering into every project, lifts all these common arts to the higher level of refinement in taste.

"Such union of utility with art in common crafts opens up one of the most promising and far-reaching outlooks for educational progress. The development of the fine arts in close union with domestic science and industrial arts holds out high hopes for the future. Thus far is has made scarcely more than a faint beginning."

The article I have been quoting was written five years ago. Reviewing the history of education for these last five years, we are impressed by the hearty reception of the arts in educational circles. On every hand the leaders in education have given full recognition to the place of the arts, sometimes in most extravagant terms, and even the casual observer must have noticed the ever increasing number of articles and editorials in both popular and educational magazines touching some phase of art and the great need of developing the spiritual and non-material side of the lives of our citizens.

Last summer we had at college an exchange professor from Germany, an educator of the highest rank. I became very well acquainted with him, enjoyed many examples of art work produced in his unique experimental school, and asked him how I could quote him as to the position art held in the present German educational system. He said that before the revolution education was to be considered as a great stream into which the various school subjects flowed as so many tributaries. But now things are different. Art has become the main stream into which all the subjects flow to be unified—to give purpose to life itself. Another professor from Germany told me much the same thing this past fall, and a visiting French professor now with us makes the same observation as to public school art in France.

Quite incidentally, I might suggest that these hints from across the sea should whet our desires to go to Prague and learn first-hand the conditions of European school art as compared with our own.

The most recent illustration I have found of the new educational philosophy came out as a cover design for the journal of the Kappa Delta Pi fraternity—a national educational honor fraternity. This design embodied the suggestions of the editors for a symbolic architectural design that might well be called "The Portal of Education." The editor, Alfred L. Hall-Quest, explains the purpose of the design.* The architrave presents the "four fields of endeavor that comprehend the broad content and diversified methods of American education." A caryatid on "the extreme left portrays Philosophy, long the handmaiden of education and until recently its only mentor. . . . Standing close to philosophy is the caryatid representing the Fine Arts. . . . It may be that in the past education failed to accord a sufficiently high place to art in the unfolding of the individual, but this is no longer true. Art glorifies education. Art must be the atmosphere of the inspiring teacher.

"The third figure symbolizes Commerce and Industry, without which modern education would be impossible. . . . On the extreme right stands Science, measuring the world, ever engaged in seeking exact knowledge. . . .

"The positions of the four figures are significant. Philosophy and Arts belong together; Commerce and Industry have become possible only through Science. . . . the arrangement of the figures places Philosophy and Science at the extremes, or as the envelope within which is contained all that belongs to the Arts and Commerce and Industry."

Now here is the point of the whole matter as I see it. For a long time *we* have been sold on the values of the arts, and we have been gathering in conventions to study and discuss ways of selling our goods to the public. Whether or not it is the result of our salesmanship matters little, the fact is that the public is now being sold to art.

*Hall-Quest, Alfred L. "The New Kadelpian Cover." The Kadelpian Review, 7:101-103, January, 1928.

But, as in the business world, the ultimate success of the thing sold depends finally upon the service which is offered with the product. To continue to sell automobiles and electric refrigerators is not hard if efficient service is guaranteed as a part of the bargain.

So I am taking the position that, while we still have many problems of salesmanship, we should begin to meet in convention with more emphasis on the thought that we are 'service managers' to our subjects, and that by giving the quality of service the educators expect of us we will find our sales campaign ever on the boom. Surely, we have our place in the sun; it is wholly our fault if we cannot hold it.

It may be a question as to whether we can stand prosperity. Those pioneers in the arts who have given their lives to their work have passed on. Are we, who fill their places, measuring up to the visions they had, or do we see simply an easy-chair job?

It is with some such thoughts that I say that we must become ever more professional in our outlook and our training; that we must justify the expectations of the educators in their somewhat lately acquired interest in the arts; and that we must carry on the good work so enthusiastically begun by those who preceded us.

Professionally, then, we meet in the thirty-fourth assembled convention of the Western Arts Association. Through Council action this year we have a better balance to our program—a program of five distinct factors. First, sectional and joint round table meetings give opportunity for the presentation and discussion of timely problems within the special fields of the arts. Second, the general meetings provide addresses by able leaders to keep us in contact with the large elements of our activities. The third part to our program is the allotment of definite units of time for visiting actual teaching situations in the Indianapolis schools, while the fourth feature is the definite placing of time units for visiting the school exhibits, the materials and equipment exhibits, and the industrial visits in the city. Your attention has been called in our bulletins to the new method of hanging this year's school art exhibit, whereby it is possible to make parallel comparisons of selected topics from several cities. The fifth feature in the make-up of our program is the provision of time for fellowship. Breakfasts and luncheons afford settings for get-togethers of school groups and subject interests, while the big event is the cruise of the Wesarta. It is here that your committee has divorced work from play, and our annual banquet and dance this year will be simply a matter of fun and frolic. The four hundred guests of the evening will spend their good money for entertainment, and those who do not care to waste an evening in such idleness will be happy in knowing that they will not miss one of the important addresses of the convention. And so here is your program carefully divided into practical units so that you may use every minute of your time as suits you best.

Art As a Constructive Force in Education

LEON WINSLOW
Director of Art Education,
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MR. PRESIDENT, Fellow Art Teachers: After the remarks made a few moments ago by your President, I assume that all teachers at this present time are teachers of art. If you are a home economics teacher, you are a teacher of art. If you are a grade teacher, you teach art. If you teach music, you teach art. (Music is not all auditory, I am convinced tonight. It is partly visual.) We are all art teachers, whether we are conscious of it or not. If we are good teachers, we are art teachers; the others may not be. It is up to us all as teachers to make our art exert a constructive force throughout the curriculum.

I have brought with me tonight to show you, some pictures which I think to some extent will bear out this proposition that we are all art teachers, and that art should exert a constructive force throughout the curriculum beginning in the kindergarten, and extending through college, although I am not going to say anything about kindergarten, and I am not going to say anything about college. I am going to talk to you about art as a constructive force, in the ordinary public school curriculum, beginning with the first grade, and going up through the grades to and including the senior high school.

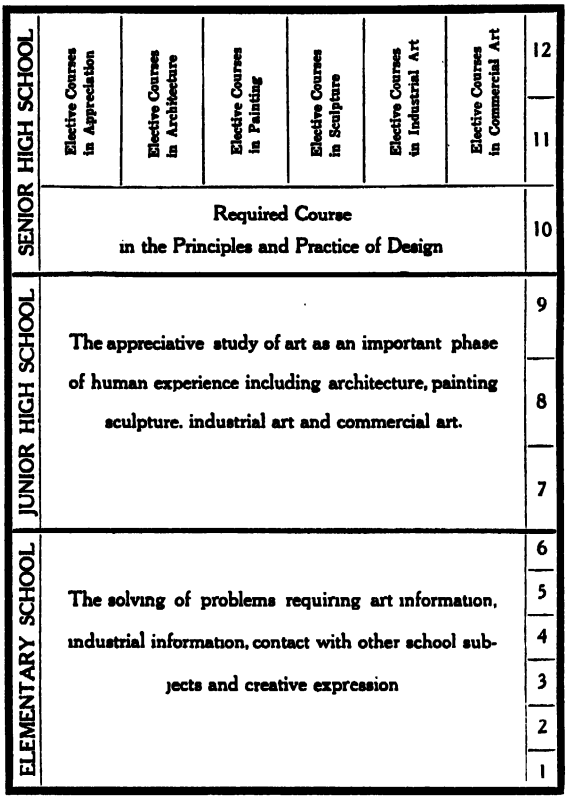
First I am going to try to define art in a very brief way, and if I may have the pictures, I will try to show you how art fits into the general scheme of things in the public school.

We started out in the organizing of our art curriculum by attempting to define art. Tolstoi took fifteen years in his attempt to define art. Other people have tried to define it. Probably you have tried. Our first definition was three pages long. We later boiled it down to two pages; finally to a single page; after that to a paragraph, and then to a sentence. I don't know, I am sure, whether we have hit the nail on the head or not, but we came to the conclusion that art has to do with the purposeful and creative expression of feeling or of emotion in appropriate, concrete form, with skill in design, and technique, as determining factors of excellence.

I think we should agree at the outset on a definition of art that will serve us as a chart and compass. If we are to teach art we should know rather definitely just what it is that we would teach.

This chart represents the public school curriculum, the first six grades, primary and upper elementary, constituting the elementary

school, followed by three grades, junior high school, and three more, senior high school, making the secondary school, the three-six-six plan, or sometimes called the six-six plan.



From the standpoint of interest on the part of the pupils, we find that, taking the country as a whole, there is a large group interested in agriculture, another group interested in industry, another group interested primarily in college entrance, or the general curriculum; another, interested in commercial activities, and still another group interested in the household. From the standpoint of number of pupils concerned these are the five main topics of interest, but from the standpoint of the individual, art is of equal importance to a more restricted few, the group of talented boys and girls whose training in art is obviously of the utmost importance in education.

A knowledge of art is essential (1) to our social life, because most well informed people are today discussing art matters; (2) to our industrial life, because quality in most manufactured products is determined largely by the element of art that enters into their design; (3) to our business life, because the art quality in advertising and in

the arrangement of goods for display is an important factor in promoting sales; (4) to our spiritual life, because pictures, buildings, statues and the common things of daily use take on a new significance when their artistic meaning is understood; (5) to our mental life, because the study of art is now considered one of the fundamentals of a liberal education; (6) to our understanding of current events, because newspapers and other periodicals contain numerous references to works of art; and (7) to the all-around development of children because they are even now facing art problems in their daily lives as children and because they, in their time, will face critical aesthetic issues of the utmost importance.

Consequently, there is a definite and growing need for instruction in art in the schools. This is due quite generally to the fact that the principles underlying art expression are almost universal in their application. In many of the common activities of life art plays an important part; its principles are used extensively in the selection and wearing of clothing, in the furnishing of homes, and in the practical work of the trades and professions. Aside, however, from the utilization of art in meeting the ordinary everyday needs and the employment of art principles in the construction of any worthwhile industrial product, there remains also to be considered the cultural and recreational value of art. This is evinced in the enjoyment of all fine and beautiful things fashioned by the hands of man.

If it be granted that all people have capacity for artistic judgment that can be developed by means of instruction, and that a trained aesthetic sense adds to one's personal happiness, by making life deeper, richer, and more worth the living, then it becomes the duty of every citizen to insist upon the best-known methods of art teaching in the schools. Traditional methods, which were the outgrowth of economic and social conditions entirely different from those which obtain today, will have to be replaced by modern ways. Just as manufacture by machine has almost totally supplanted craftmanship in the industries, so must there be a corresponding change in emphasis in the teaching of art.

The ancient Greeks taught us that beauty comes from qualities inherent in objects themselves rather than from any reflection of the personality of the designer. Granted that some forms of artistic expression like painting, sculpture and craftsmanship do still have a place for the subjective and the unique, in the products of modern manufacture by machine this element must be confined quite largely to the initial design or model since the subjective uniqueness is bound to disappear in proportion as production is multiplied. Whether we like it or not, the machine is an economic necessity to be reckoned with in the program of educational reorganization even though the craftsman of the Renaissance did lead us to believe that no product

should have claim to beauty unless its singularity should reflect the personality of its creator.

In spite of the fact that there is less opportunity than formerly for the creative expression of individual fancy, the designer insofar as the aesthetic qualities of his product are concerned has become vastly more important today than ever before in history, for it is he who even before the machines are put to work endows the product, in advance of its actual manufacture, with all the inherent are quality that it shall ultimately possess. The master designer of today is also master of the machine. If the product turned out is good the designer and the machine have both done their work well; if the product is not good the designer has generally been at fault, for as Emerson might have expressed it, "the machine is but the lengthened shadow of a designer."

From what has been said it might be assumed that any manufactured product which is commonly called good is by virtue of that adjective beautiful or artistic in design. This, however, is not true, for there is a wide difference between mere workability and the spiritual quality of aesthetic excellence. A chair might in one sense be regarded as good if it was strong enough to support the weight of a person, yet the chair might at the same time be deficient in every artistic excellence of form, color, finish and material. The same is true of every other article made to serve some useful purpose. Consequently, no product should be considered good unless it is materially adequate, also beautiful from the standpoint of design.

Objection may here be raised that a sense of what is beautiful in manufactured things is an inborn gift and not the result of education. Perhaps this may be true to some extent, for a few individuals, and in certain particulars. Such inborn taste is extremely rare even in its most elementary aspects. Only when such gifts are cultivated and trained do they produce an art critic or an artist. Art education then is necessary for both the purposes of discrimination and for those of creation. A fundamental knowledge of design principles and ability to apply them intelligently is needed alike for those who are to use and for those who are to produce art products.

In order to meet this need all complete educational programs today make definite provision in the schools for some form of elementary, secondary and vocational art instruction. The elementary school course is general in its purpose; the junior high school course exploratory and tending somewhat toward specialization; the senior high school course special, except for pupils electing to pursue the general curriculum; the vocational school course decidedly special.

In the public school system taken as a whole instruction in art has a two-fold function to perform: first, to develop in all the pupils sensitiveness to and appreciation of the various forms of art; second,

to discover, foster and train creative genius in the gifted pupils. The school must bring children, through careful training, to choose things which are good in design and, through their cumulative choices, to create an environment in which beauty shall prevail. Few pupils will become producers of art products, all will be brought to understand and to use the prinicples of design.

More specifically, the major aims of art education are: to arouse and preserve in all pupils an interest in art, to enlarge and enrich the aesthetic experience, to provide educational and vocational guidance in art and to provide for gifted pupils vocational art training. In order that all of these objectives shall be fully realized it is for the teacher of art to see to it that pupils are given opportunities throughout their school experience to employ the principles of design in all life situations where they apply; should encourage pupils to use their leisure time to the best advantage by calling attention to the recreational and other educational inducements offered by the art museum and the public library; should point out the value of knowing about design principles in order to be able to discuss intelligently the artistic significance of all man-made things; should insist that without such a working knowledge of design it is impossible to recognize, evaluate or appreciate a work of art; should aim to establish in all pupils a reasonable ability to express ideas of form and decoration and should help each pupil to determine his own productive capacity by giving him an intimate insight into the requirements set up by the various occupational fields.

The problem of reorganizing an art department with the aim in view of bringing it abreast of modern educational theory and practice may be illusrated to some extent by giving a review of what has been taking place in the field of art education in the city of Baltimore during the past four years. In 1920-21, according to the Baltimore School Survey conducted under the direction of Dr. George D. Strayer* of Teachers College, Columbia University, the Baltimore

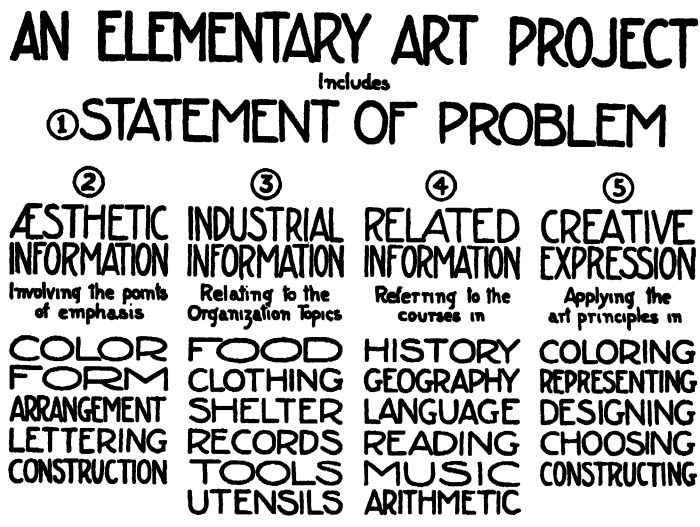
*Note: Since the Strayer survey changes made in the supplies used by the children have also been numerous. Supply items are now limited strictly to those that seem likely to yield the richest return to the pupils. Less use is made than formerly of transparent water color paint. There has been a corresponding increase in the amount of crayon and opaque water color purchased. More use is made than formerly of linoleum printing blocks, of colored inks, oil paint and of crafts materials generally. The greatest change in matter of supplies involves the present general though limited use of illustrative material in the form of half-tone color prints and lantern slides. Textbooks have also been added to the list of necessary junior and senior high school supplies.

All new art departments in the platoon schools and in the junior and senior high schools now are provided with special art room units, a unit being made up of two standard classrooms so divided that one and a half standard rooms are furnished for instruction in drawing and design, and one half room, adjoining and separated from the drawing room by a glazed partition, is equipped for crafts work. The drawing room is surrounded, except for the windows and doors, with a strip of corkboard six feet high installed on the walls, has a large movable slate blackboard, stereoptican machine for slides and opaque projection, stereoptican screen, and forty or more individual drawing tables with cupboard for drawing boards, shelf for books, drawer for supplies, and an adjustable top. The craftsroom is equipped with six or more work tables with outlets for gas and electricity, and a deep sink supplied with both hot and cold water.

course of study in "drawing," prepared in 1915, still furnished a basis for the instruction in art. In commenting on the usefulness of this course, the survey report states that instruction appears to have been planned as though its primary purpose were to develop the technique required by the artist as a producer. The report states further that the purpose of the work seems to be dominantly the development of skill in drawing, and coloring, and abstract illustration of principles of design; that there does not seem to be any attempt to design something to be made, thus calling for a genuine motive for finding out about the principles of design as meeting real needs; that exercises are planned in considerable detail; that much of the work is practically dictated; that there seems to be no thought given to the individual needs of children in different parts of the city; and that, to improve the work, the need is fundamentally a change in emphasis from training in art production to that of getting experiences in art appreciation, in the study of art as consumers.

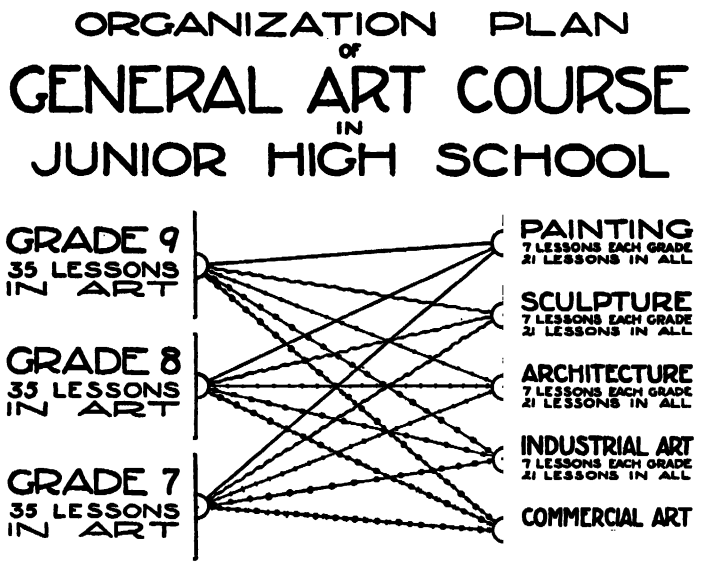
It is encouraging to note that many changes in emphasis and content of the art courses, observable in the public schools of Baltimore since the Strayer survey, have been made in conformity with the recommendations of the survey report. Courses have been developed on the assumption that the aim of general art education is apprecation of art products rather than skill in producing them, and that a motive for the instruction must be found in projects demanding creative expression on the child's part. In the elementary schools, this expression is inspired quite largely by industrial information for which a genuine need has been felt in carrying on instruction in the other school studies; in the secondary schools, by an aroused interest in art, with special emphasis placed on the fine examples of art products which are to be seen and studied at first-hand in the city of Baltimore. Neveretheless, productive work has its appropriate place even in the new program in developing a moderate degree of skill in the use of art mediums, always as a means of expression, and chiefly in relationship to the development of appreciation.

Baltimore's new elementary school art course is typical of the courses that are now being developed in a number of cities where the project method of instruction has been tried and found to be suited to the purposes of instruction by the regular grade room teacher. The course is made up of a number of significant projects, each complete project always including (1) statement of the problem, (2) art information, (3) industrial information, (4) related information from contact with other subjects, and (5) creative expression.



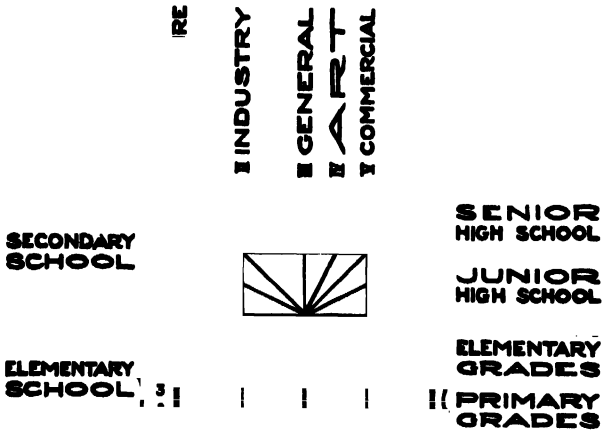
Try as we may to provide one elementary school subject that will entirely take care of art instruction we shall not succeed, for art will not be so confined. Nevertheless, art as a school study should include the subject matter of color, form, arrangement, lettering and construction, with appropriate points of emphasis assigned to each topic for each of the first six grades. This information always finds its ultimate outlet in creative expression, as in the making of drawings, designs, or constructions, or in the selecting or combining of objects. Creative expression presupposes the necessary suggestions and general directions for handiwork. Industrial information is organized under the topics of food, clothing, shelter, records, tools, and utensils. Related information is provided in the courses in history, geography, arithmetic, language, and music. Consequently, it will be noted that in the elementary school, art is to be conceived of as the child's expression of the beautiful whether the work has been done in the period set aside for art instruction, during the so-called work period, or in connection with any other school study, the present tendency being toward a unified project curriculum.

The art period, as such, is given over almost, if not quite entirely, to the teaching of art information through the medium of creative expression, to a serious study of the transformation of natural or raw materials into artistic finished products of various kinds, to a consideration of the relative aesthetic merits of the products, and to their harmonious combination and arrangement. It has been assumed that artistic taste will necessarily result from this systematic practice in evaluating and combining the works of man.



In the junior high schools, the subject of art is special rather than general as in the elementary school, and is required of all pupils throughout the entire three years. Instruction has been organized around five major topics as follows: architecture, sculpture, painting, industrial art, commercial art. Approximately half of the pupil's time in the art class is given to recitation, illustrated lecture, and textbook assignment and half to practice in drawing and design. For the purposes of instruction in the junior high school, art has been defined as the purposeful and creative expression of feeling or of emotion, in appropriate concrete form, with skill in design and technique as determining factors of excellence; architecture, as the art of building, which seeks to harmonize in building the requirements of use and beauty; sculpture, as the art of glyphic expression embracing statues and decorative ornament, in which ideas are given solid form in plastic or in hard material by modeling, carving, or casting; painting, as the art of graphic expression in which objects seen or imagined are represented and in which ideas and feelings are given form by laying colors on a surface; industrial art, as the art of manufacture in which skill and creative ability are employed in the conceiving or forming of a product of utility in accordance with the principles of design; commercial art, as the art made use of in business to popularize ideas and products and to give aesthetic pleasure by means of lettering, pictures, and the display of goods in accordance with the principles of design.

With appreciation still as the chief aim of the junior high school art course, each organization topic is carefully studied under the



THE PLACE OF ART IN THE CURRICULUM

following sub-topics: definition, function, creative expression, form, quality, evolution, and vocational opportunities. Handwork consists of drawing, painting, modeling, and construction or craftswork; it is governed almost completely by the organization topic and is controlled by the sub-topic relating to form. Art form is stressed throughout the three years of the course. It is conceived of as including the entire formation of a work of art in accordance with aesthetic principles; it embraces all art structure which makes use of line as the measure of length, mass as the measure of area, and color as the measure of light. Form is also interpreted to include design, mediums and materials, and processes.

Although the contract between subjects in the junior high school cannot be as close as it is in the elementary school, the information and skill acquired by pupils in the art class may always be put to good use in the other subjects and in extra curricular activities generally. Whereas correlation in the elementary school can be carried on most effectively through establishing contacts between the subjects, in the junior high school, it will be recognized that correlation is with subject matter from the fields represented by the subjects rather than with the subjects themselves. Consequently, the junior high school art course relates to the fields, rather than to the subjects of home economics, industrial arts, history, science, mathematics and the languages.

A recent investigation of the junior high schools of Baltimore to discover aptitude and talent in the arts disclosed 109 pupils out of

approximately 15,000, with marked ability in art as follows: in architecture, 17; in sculpture, 8; in painting, 29; in industrial art, 30; in commercial art, 33. Of the total number 68 of the pupils are girls and 41, boys. It is hoped that some special provision can be made for this group in one of the junior high schools during the next scholastic year.

The senior high school curriculum in art is characterized by the continuation of general art study, followed by a number of courses in which there has been a somewhat intensive concentration on certain specific arts. All ninth grades in the senior high schools comprising a four-year curriculum follow the junior high school outline for Grade 9. In the first year of senior high school, a required general course, Principles and Practice of Design is offered, its chief aim being the appreciation of art through the understanding and applying of design principles in the many aesthetic problems of daily life. Performance is given an important place in the outline, the theory being applied directly in carefully executed drawings and designs. In addition to offering this course, the senior high schools of Baltimore also make provision for a number of elective art courses which, though cultural in aim, are planned to meet the distinct pre-vocational needs of groups of talented pupils whose interests lie in the art field. These courses include commercial art, costume design, color, crafts, freehand perspective drawing, the appreciation of art, illustration, industrial art, architectural drawing, and interior decoration. A sequence of courses, with art as the major subject, leading to a high school diploma has already been inaugurated in two of the senior high schools, and it is quite probable that other schools will later adopt the plan. Graduation from this sequence admits either to college or to the special art school.

All the courses will need to be examined, evaluated, and reorganized periodically to meet the changing educational demands both for art appreciation and for art production. Pupils will need to be fully acquainted throughout the course with all phases of artistic expression. The complete program should make systematic provision for all type of elementary and secondary art instruction. The elementary school course should aim to develop general appreciation and taste; the secondary school course, to deveop the taste, and to discover, foster, and train creative genius in the gifted pupils.

The Arts in Education

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ALL of our arts have come as the result of man's attempt to satisfy his wants. Together with language they constitute the earliest form of activities which differentiate man from the lower animals. On one hand the motivating force for their development has been and is now an intelligent, purposive attempt to find satisfiers to certain wants, such as those associated with food, clothing, and shelter. They are on the other hand, the direct product of the instinctive tendency to manipulate and to construct. In fact, in the development of the human species the ability to execute ideas in concrete materials was conditioned by the development of that wonderful mechanism, the human hand, which today constitutes an outstanding anatomical difference between man and animal. In the evolution of the genus homo the mind and the hand have developed together and in a cooperative and reciprocal manner.

The appeal of the arts is both universal and enduring. Evidences of work, crude though they may be, in both the industrial and the fine arts are found in all periods of history and among all races of people. Indeed, the history of the development of civilization can be traced by the progress they have made in the arts. "Going back farther into history than the crudest language symbols carry us, we find many remains of specimens of drawing, design, color, and construction." The arts modify the life of the people and change their habits of thought. They have standards by which the modes of life of the people may be judged. The author of Ecclesiasticus was correct in attributing immortality to art by his statement that all things pass, but art endures. However, this is but half the truth. For while both fine and industrial arts are universal and enduring, they are forever changing and are constantly subject to refinement. They change like "Camelot, of King Arthur, a city of shadowy places and stately, rich in emblems and the work of ancient kings who did their days in stone, which Merlin's hand, the Mage at Arthur's court, knowing all arts, had touched." A city "which was built to music, therefore never built at all and forever building." These lines are quoted from Tennyson to show a great literary artist's figurative expression of his conception of the continual change which characterizes the arts. Like the growth of an ideal we no sooner achieve in material form our conception of standards in the industrial arts than we refine our ideas and improve upon our designs and start to work upon a new model.

A noted educational psychologist has said that "The arts and sciences serve human welfare by helping man to change the world, including man himself, for the better." The word education refers especially to those elements of science and art which are concerned with changes in man himself." Education deals particularly with modifyability or learning in connection with intellect, character and skill. Assuming that this definition of education is substantially correct, training in the fine and industrial arts has in the past and does now constitute a very essential and large part of our educational program, regardless of whether or not the training is of a formal type carried on in a regularly constituted school or whether it is of an informal type carried on outside of any organized school and without any formal program for instruction.

As acquired intelligence and skills cannot be transmitted from one generation to another by inheritance it is necessary if the race is to make progress that what one generation has learned be taught by that generation to the succeeding generation. Training in the production of material objects useful to man in supplying his wants constitutes the first directed purposive effort at education. The parent taught his son how to fashion a bow, how to make an arrow, how to cook the flesh of an animal, how to weave a piece of clothing.

There was early developed a body of organized knowledge and abilities in various skills which could be early analyzed into present-day categories and labeled in modern terminology. There was the knowledge of stock and raw material, classification of different kinds of materials, and the knowledge of the working quality of different materials. There was trade-related knowledge dealing with such subjects as the seasoning of wood used in a bow, the effect of moisture upon paints and other materials, the physical properties of metals and the design of river craft to meet varying conditions. There are evidences that even among savages instruction was given in the art of making weapons, instruments and devices of hunting, and articles for personal adornment. In some instances even the present system of locating various industries near the source of raw materials was practiced. In such cases it is highly probable that those most competent in certain skills helped to direct the work of others and instructed the novice.

The result of the introduction of power machinery with the consequent quantity production methods has tended toward a high degree of specialization among the workers in industry. This in turn has taken out of the hands of one individual the responsibility and the privilege of designing and making a finished commercial product, and has placed in one individual the responsibility for the design, and in another individual the reponsibility for producing the product, or rather a part of the finished product, according to certain specifications furnished him and with the power machinery of the plant.

The day was when the work of design and production were combined in the artificer, but for the great majority of industrial products in common use that day has probably gone forever. One set of men will continue to draw the plans for industrial products and other sets will continue to shape and mold materials into forms in accordance with blue prints and specifications. I am no pessimist. The industrial and artistic character of the world has changed. Only by means of quantity production can the needs of modern civilization as represented by a great democracy be met.

The power of man's arm has been strengthened by the use of steam and electricity, and by the use of mechanical devices his hand has been extended to perform tasks hitherto impossible, while the work of his fingers has been greatly multiplied by the stubstitution of fingers of steel. Ingots of steel irresistible to the efforts of human muscles are now drawn into wire, rolled into rails or hammered into tools at will. Power tools and machines make it possible to produce large quantities of ornamental and useful products from wood, metal and plastic materials, thus supplying the masses instead of the rich few with the commodities of the arts. Moreover, scientific research has greatly enlarged the field of the arts. If the masses are to have the advantages of the automobile, the radio, and the airplane, their manufacture must be based upon quantity production.

In the development of a new idea into a material product the first consideration is to make it work. The inventor and even the early manufacturer are absorbed in producing something that will function. They, for the time being, largely neglect the demands of art. However, with the perfection and marketing of the new commodity, there is a demand that the material product be refined in accordance with the principles of art and craftsmanship as applied to beauty, use and convenience. We first embody our idea of a new industrial product in a crude form, and later when the working principle has been proved commercially successful, we set to work to make it artistic.

For example, compare the first commercial automobiles with the beautiful designs of today with their stream line bodies and artistic finish. It was not enough that an automobile could be made to run and could be sold cheaply, it must not too grossly violate the principles of harmony and beauty in its construction. The users demanded that it be built with some regard to beauty. If another illustration of this fact relative to modern inventions is needed, compare the tin-can and crude box type of the early radio sets with the beautiful cabinet sets now in the market. These examples prove that art, like truth, will eventually prevail, that it is universal and eternal. In the productive arts it demands harmony and simplicity instead of confusion and complexity. Michael Angelo was right when he said "The artist is known by what he omits." He untangles the things which are cluttered; he brings order out of chaos.

Relative to the value of art in practical life it is interesting to note that Otto H. Kahn, in a recent address, said: "It may seem incongrous to refer to the subject of art in the midst of a business speech, but I feel that it is appropriate, in a survey which attempts to deal with the fundamental elements of our day, to call attention to the ever growing importance and influence of art as a factor in the lives of millions of people. Incidentally, I would point out that to cultivate art, to love it and foster it, is entirely compatible with the qualities which make a successful business man."

As to the value of special forms of education, such as vocational industrial education, and home economics education, we all agree with Ecclesiasticus who, after he has given us a picture of a number of artisans pursuing their different lines of work, says "All these put their trust in their hands and each becometh wise in his own work. Without these shall not a city be inhabited, and men shall not so journey nor walk up and down therein. . . . They will maintain the fabric of the world."

As a part of the general education program there must be offered sufficient training in the graphic, plastic, mechanic, culinary, and fine arts as will give the individual sufficient mastery over his environment to make it serve his needs. To obtain such a mastery he is forced to acquire considerable practical knowledge of the materials, principles and processes of industry. If, as a consumer, he is to judge intelligently the qualities of the things he purchases and uses, he must know something of the processes that produced them. No other set of subjects in the school curriculum contribute more toward the realization of so many of the generally accepted "cardinal principles" of education than do the arts.

With the manual arts, in which I include the culinary arts, and the fine arts occupying so large a place in the curriculum, we must be on the alert to make the most of the responsibility which we have assumed. From 1915 to 1922 the enrollment in home economics courses in our high schools practically doubled, and at the present time includes about 14 per cent of the high school enrollment. Estimates obtained by the Bureau of Education from the superintendent's office of 307 representative cities show that 72 per cent estimate that for the ten-year period from 1915 to 1925 the time allotted to the manual arts has been increased. Most of the cities estimating no increase were already in 1915 giving considerable time to the manual arts.

In order that we may stimulate the work to its greatest efficiency for realizing acceptable educational objectives we need to keep our eyes open for the problems in our field and to conduct research studies for both those which are unsolved and for those in process of solution.

For example, we need to differentiate more definitely between courses offered for the purpose of making intelligent consumers and users of the fine and the industrial arts and courses offered to train in

the creation and construction of such products. At the present time considerable confusion exists relative to this both as to clear objectives and curriculum content for a particular course.

We are also confronted by the problem of determining the best method of instruction for the realization of a given object. To what extent are courses in production work necessary in the different arts in order that the student may be properly trained in appreciation for the given art is largely an unsolved problem. In a course to train for intelligent use and appreciation of the products of the industrial and fine arts, where in the course should the creative work come and at what time in the course should work in interpretation and analysis of underlying principles and "exposure" and association with the products of the arts be introduced? These are fertile fields for scientific studies.

Again we are interested in determining with greater accuracy just what courses in home economics, manual arts, and fine arts should be put in the junior high school, and what in the senior high school. What interests, what aptitudes, what achievement abilities of students in the various grades shall be selected as criteria for determining in what grade a given type of work shall be offered. This is another problem which is only in process of solution.

The subject of tests seems always to be pertinent to any kind of school work. I merely raise these questions. Have tests for arts courses been sufficiently tried out to establish their true values? It is possible to devise tests and measurements that will have real value for the determination of aptitudes and interests, accomplishment abilities, and for standardizing instruction and for credits to be granted for a given course.

I am glad that there is one large organization interested exclusively in the problems pertaining to instruction in the arts. We need such an organization as the Western Arts Association to promote and guide the educational activities carried on in the arts. We need the cooperative strength of a body like this to stimulate and reinforce the teachers of the various arts in their attempt to educate the youth of our country in the conception formed in the golden days of craftsmanship that art and industry are one.

Experiences of a Salesman of Art Education

C. Valentine Kirby
Director of Art for Pennsylvania

I ASSUME that we are all endeavoring, each in his separate field of influence, to make the best possible contribution to the advancement of Art and Art Education. In our efforts to bring those things hoped for to pass, we are mindful of the fact that in the field of Public School Art the man on the street pays the bills and to a large extent, school authorities control our destinies. Public School Art is dependent upon the community for its support and Art Education is cast in a common educational mold, which must govern and control its character to a considerable extent. Not alone Art, but education in general—prohibition, religion, and competitive industry—must meet and accept a like challenge and seek to overcome ignorance and opposition.

The question naturally arises as to whether we have or have not made reasonable progress in Art Education and whether that progress has been commensurate with progress made in other lines of education. Recently a publisher of educational journals wrote me as follows: "The writer has been shocked in checking our high school lists of subjects to reach the conclusion that when all is said and done, Art instruction is losing very steadily not only in the high schools of the country but also in the grade schools." Now we are confident that we have made significant progress both in our educational thought and the realization of our aims and objectives, but unfortunately we have no scientific data at hand to disprove disconcerting statements of this kind.

Another question confronts us as to the extent of saturation of Art Instruction that may reasonably be expected. Despite the fact that we are to some extent creatures of circumstances and dependent upon school authorities for our opportunity to serve, and these administrative officers control our destinies to a considerable degree, I am impressed by many circumstances and situations where the Art teacher or supervisor herself is the chief obstacle in the way of progress and a higher valuation of Art Education.

Each day as our experience adds to our knowledge we must be more and more impressed with the fact that the successful teacher or supervisor of art must in addition to certain distinct personal characteristics have an educational and professional record of specific technical training for the job. Her art should be an applied art—applied to the profession of teaching and supervising the arts.

In this connection and with the thought of higher professional attainments, I have thought how fine it would be if every newcomer in our field could sit as we do in a theater and as the curtain is raised one would see a review of all that has gone before in the way of contribution to our Art Education of today. There would be seen such pioneers as Rembrandt Peele, distinguished painter, and probably first supervisor of Drawing in the United States; Walter Smith, who came from London and laid imperishable foundations in Massachusetts, and William Minife of Baltimore, who as early as 1848 wrote the following:

> "To get good designers we must take the proper means for educating, and if we should make drawing a branch of common school education, we should have an opportunity of selecting those who evidence superior talent for the art and at the same time, by improving the taste of all, we should create in many an appreciation of the beautiful and consequently very much extend the consumption of art productions."

There would be shifting of scenes as new light brought new ideas and higher ideals. What a wonderful experience for them to catch at least a glimpse and perhaps a vision of Professor Dow, James Hall, Dr. Haney, Walter Sargent, and others who have gone but left a rich heritage. Some of us caught this inspiration first-hand. Surely we should do our utmost to provide this historic pageant in all our schools that aim to prepare teachers and supervisors of Art.

And now may I call your attention to certain types among art teachers and supervisors who have been detrimental—though perhaps unwittingly—to progress in our particular field. I know them all well and perhaps *you* do.

First might be mentioned the "floater" and the "temperamental" types—both are disturbing factors to both superintendent and the teaching body, to say nothing of the children. The "floater" is not alone responsible for the too frequent changes that take place as one art supervisor succeeds another, but at any rate there is frequently such a wide variation in content and methods with such disconcerting effects that the question is raised if we Art people really know our own minds. As for the temperamental type, the superintendent has heard something of the "artistic temperament," and so he is suffering, but nevertheless it has been the means of killing public school art in more than one community.

Next I would propose for consideration those who are carelessly neglectful in "exhibiting their wares" and failing to acquaint the community with a just appreciation of aims and accomplishments in Art Education. The music is heard on every occasion. The art work is shelved and too seldom seen. Many superintendents have the support of the community and school board in the employment of the

Music Supervisor and seek the cooperation of the Art Supervisor to help win a like regard for Art Instruction. A publisher who recently visited art supervisors in a number of important cities, even to the Pacific coast, told me he was impressed with the fact that in most cases not even an annual exhibition was being made. Be an Art influence in your community—don't hide your light under a bushel.

Further consideration might be given to other supervisors I have met. For example, there was the gossip—always in hot water—the one who was disloyal to her superiors, one who was uncooperative, fault-finding, over-exacting. Then there was one (in fact more) who "elocuted," but never demonstrated her art, and some who were disorderly, unsystematic, wasteful, but a particularly unfavorable impression was created by those who were devoid of the thing they talked most about, namely, "taste." They violated it in their own appearance, as well as in their choices generally. Superintendents and others lost faith because they did not practice what they preached.

A primer of salesmanship advises as follows: "Make sure that your looks reflect the quality of the best goods you have to sell."

It is indeed fortunate that after all there are comparatively few of these and many, many who with sound common sense, orderly in nature, forwardlooking, and professionally inclined, are promoting the best in Art Education and bringing things hoped for to pass.

Among these I am thinking of many who, like yourselves, are filled with the professional spirit. This is assured by our attendance at a convention such as this. The professional spirit leads one out from the confines of our particular field of employment to a greater self-enrichment and to a service in the larger interests of Art Education.

An impressive example of what I have called the professional spirit has been shown by your representatives and others on our Federated Council on Art Education. They have worked in season and out devotedly in the interests of all who have to do with Art Education.

A supervisor who was offered a much better position, wrote me as follows:

> "A state of hesitancy exists because of a complicated conflict between my mercenary ears and my conscience. For many outside reasons, I would like to listen to new offers, but feel it my duty to remain in Fairmont. Art progress in the grades has suffered greatly from annual and bi-annual change of supervisors. I feel that I should break the record and tarry here more than nine months."

Surely here is the professional spirit in large measure.

One of the most interesting and effective supervisors I have known became devoted to the idea of doing all in her power to enrich and beautify rural community life. Although she held a Master's degree and refused flattering offers from higher institutions, she accepted a position as art supervisor to visit rural schools in a county both agricultural and industrial in character. I wish to quote the following excerpts from several of her letters:

"I am so happy I can hardly write.

"I always want to be a pioneer. I want to go into the most hopeless situation. Do you think I am a hopeless fool?

"I believe that this work is going over, and it makes my heart sing.

"I am almost exhausted at night, but I am all right the next morning.

"I take my kodak along.

"I hope I can live up to your expectations.

"I will live up to the best that is in me, the work is all that counts.

"It is a wonderful adventure, just what I want my life to be—always a wonderful adventure."

Three years ago the County Superintendent of Schools (Westmoreland County, Pennsylvania) made provisions for employing a supervisor of art for its rural schools and the same exceptionally devoted and effective young woman was secured. The results were so favorable and pronounced that this past year eight supervisors were employed. Three years ago, twelve Districts introduced Art Supervision into their schools, this year twenty-four Districts have provided Art Supervision. Three years ago one Art Supervisor was provided for eleven Districts, under the direction of the County Office and one Art Supervisor gave all her time to one District that desired closer supervision.

This year there are four Art Supervisors working under the direction of the County Office, representing twenty Districts, and five hundred and fifty teachers; and four Independent Supervisors working in four different districts, and representing one hundred and eighty-four teachers.

The first year twelve Districts were served by two supervisors at a total cost of $3,700. The second year, sixteen Districts were served by six supervisors at a total cost of $10,635. The past year twenty-four districts were served by eight supervisors at a total cost of $15,535.

A taxpayer in one district said that although they had a 32 mill school tax, they would not dispense with their art supervisor.

One of the assistant county superintendents in appraising the work said that the teachers had caught the art spirit. It was noticeably reflected in their attire and personal appearance, effecting the children as well. The school rooms became neat, orderly, and beautiful—no longer an offense to the eye. Ideas of fine and appropriate decoration were noticeable in the way of landscaping and beautifying the school grounds, and these same ideas carried to the home in like manner. It was learned that parents were referring to their children for decisions relative to the best in lamps, wall paper, and rugs. Moreover, it was reported that the art influence had reached far beyond the art period and enriched the whole school, the home, and the community life.

A school superintendent recently told me that his supervisor of art received a larger salary than was paid by like school districts, and added that the exceptional salary was in part for an art supervisor and the balance by way of recognizing her invaluable contribution to the life of the schools and the community. A high school principal expressed his appreciation of art and the art teacher in his school by saying she has reached out from her art room and made art a constructive force in all that went on in the school.

Among those who brought things to pass and created an exceptionally favorable consideration and high regard for art and art education, was Miss Lida Hooe, who passed away nearly five years ago. Miss Hooe, as you may recall, was supervisor of art in the schools of Dallas, Texas, and when she died the schools of the city were closed, a most beautiful tribute was tendered by the Board of Education, and the whole city mourned her passing. A school building bearing her name perpetuates her memory in a living monument.

In Conclusion I Would Offer the Following Considerations That Have to Do With the Teacher and Supervisor of Art and Progress in Art Education:

(1) The importance of doing creative work and demonstrating one's art.

(2) The need of wider reading and experience that will give information relative to the following:
   a. Vocational opportunities for art students
   b. Facts in regard to the use of Art in merchandising and manufacture
   c. A digest of current art events; familiarity with art and artists

(3) Responsibility for schoolroom decoration and an appreciation of environment reacting on the child as a silent teacher of beauty.

(4) Cooperation as defined by Dr. Lucy Wilson "so to conduct yourself that others can work with you."

(5) The cultivation of the Professional Spirit—contacts working for self-enrichment and the advancement of Art Education in general.

(6) Responsibility for discovering, guiding, and conserving the gifted child.

(7) Guidance not alone in the field of commerce, but Art Education where "Walter Sargents" are needed to carry on.

Finally there comes a realization of the importance of Public School Art, compared with other agencies, as the logical and practical foundation for Art in America.

What We May Learn From the Place of Art in Modern Merchandising

Modern business has accepted Art as a necessary and not an ornamental factor in the successful advertising and display of commodities, as well as in the commodities themselves. Art in advertising, Art in shop windows, Art in shop fronts, Art in the entire business environment, Art because it is an attractive force and a profitable investment. School authorities on the other hand have not even begun to have any such realization of the value of Art. Ugliness rather than beauty seems to predominate in many school buildings and educational publications, and we ourselves are negligent in the display of our own art products.

Modern manufacture and merchandising meets certain competition and resistance just as we do. Concrete competes against brick, phonographs against the radio, meat against fruit and milk, fruit against flowers. Attention has been called to the super salesmanship that sells complexion instead of soap, and love and adventure instead of books. We need super salesmanship in Art Education.

Art As Related to the Unpretentious Home

JOANNE M. HANSEN
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THE subject that I have chosen, "Art as Related to the Unpretentious Home," is one perhaps that is nearest to my heart, although I am not what you might call a real homemaker, because I lack several of the important essentials, that of a husband and some fine strong, alert children.

The unprententious home of America will be the salvation of our art if we make that home as beautiful as it is possible. How are we going to make it comfortable and attractive? By being certain that our boys and girls from early childhood are given an opportunity to use their judgment, knowledge and skill in relation to life problems. They early become interested in costume. You remember even as a little girl how delighted you were with your first blue dress and your hair ribbons. You may remember seeing a boy of sixteen or eighteen, who may have been careless concerning his appearance, all of a sudden become very much concerned about the color and adjustment of his tie. Rarely, however, are boys or girls interested in improving their home surroundings. Therefore, we need to create a greater interest and give more definite training in home planning and furnishing.

After visiting a great many homes in Europe of the cottage type, I realized that in America we had perhaps less of beauty in the unpretentious home. We spend very much more on our clothing in proportion to European people. We build homes less substantially. We spend less time studying the beauty of proportion and line, mass, and color. The average home-builder goes to a contractor and says, "We expect to build a home including five rooms, two bedrooms and a bath. If you will check over our tentative plans we can start next week." Instead, we should have the most expert advice possible. We should be sure that our houses are planned wholly or finally approved by good architects. We should get all of our ideas on paper, so as to help that architect make an efficient plan and as beautiful elevations as possible. We should study the home from the standpoint of design that we may learn to discriminate between the good and the poor and thus be more alert as to beauty. We may plan a rather successful arrangement, but it is necessary to consult a good architect.

We begin far too late in life to think of improving our own homes and of what the ideal home consists. There is such a splendid opportunity even in our primary grades to bring something of the interest of home-building and furnishing to our children. With the

tiny doll house, the little ones have a real vital problem because at that age the girls love their dolls and they are interested in every phase of furnishing. There they may do the simple rug-weaving which is being done today in the desert life as it was five thousand years ago. The children may make the spindle and distaff and weave the simple borders which to them may mean a stream or a street or a tail of a kite or some other symbolism. But we don't carry it far enough. We don't go from that simple rug-weaving, from the manipulative processes to the types of rugs we should use on our home floors, so it is for practical experience in selection and the development of judgment that I am pleading this morning. As a result of the selective problems I give this illustration. A little girl and her brother went with their father in Sioux City, the mother being ill, to select a rug. The father was just on the point of selecting a pattern that was quite large for the little room for which it was intended when the little daughter said, "Oh, but, Daddy, that has too large a pattern for a small room, it won't stay down. You know a rug must stay down." She was seven years old, and she had already learned several of the important principles important in home furnishing.

Many of our houses look as though they had grown up over night, but yet they are not as beautiful as the mushroom which does this very thing, because our homes frequently seem not to belong to the site. A little home, even though simple and lovely in line, is so much more beautiful if it is tied to the earth with trees and shrubs and flowers.

The exterior of the home should indicate to a great degree what we expect to find inside, and it should also reflect the personality of the owners. For that reason we want every family to own its own home because we know that the interest and care resulting from ownership will assist in securing more of beauty.

In our work in the public schools we may begin in the grades to have children study good furniture. We might have seven or eight chairs, and have the children try them for comfort and for the study of line and design. We might have groups of furniture, using some of the things that we have at home, making a nice place for father to sit and read, when he comes in tired from his day's work, and make a nice place for mother to sit as she discusses the topics of the day with her husband or reads with her children. There are so many home problems that we may work out in school that will not only help to develop greater appreciations in material things, but which will help to make our girls and boys more thoughtful of their parents who have often sacrificed to give them these homes, and who protect and cherish them and see that they have better advantages than they themselves had.

The Better Homes of America Campaign which gives every village, city and county the opportunity to put on an educational dem-

onstration during the last week of April, is a marvelous way of interesting our children in this great problem, that of having more comfortable, simple and yet beautiful homes.

The students of the Applied Art Department of Iowa State College in cooperation with the merchants and towns people of Ames furnish the Better Homes house each year. Each class assists in selecting a general committee composed of members from each interior house design class. All students concerned visit the furniture and department stores and other shops from which materials are to be borrowed. Each class, through the general committee, is asked to be responsible for a certain part of the home. In case several classes desire the same piece of furniture the general committee assists in adjusting this or any other problem that might arise. The hangings, style of furniture in relation to the exterior, general color schemes and the unity of the whole are referred and discussed by both the committee and the classes participating. The craft classes, house planning, and commercial design classes assist in every way possible in furnishing accessories, posters for publicity, and other needs.

The Camp Fire Girls are going to keep the hearth fires burning, and they too are going to plant trees. They expect to entertain the four hundred Four H Club Girls in the county who come from the rural districts and who have done so much to improve their rooms under the agricultural extension specialists in home furnishing. Problems in refinishing of furniture, the improvement of old furniture in design and the selection of new or old furniture that will be harmonious with that already possessed are worth while projects. We are not furnishing all the Better Homes house with new furniture and are not having the college girls do all the rooms. The high school girls are to furnish the girl's room and the Boy Scouts are going to work with one college class in furnishing the boy's room.

As you know, the boy's room has so frequently been neglected, and the boy should have a livable and attractive room. It would be far better to have a way of using the living room as a guest room and giving the boy a room that is his, with his books and the things in which he is interested. Here he may make his own radio and do the things that all boys like to do. The little problems that relate so well to the home form fine inspirational material and projects for the boys and girls. If the public schools and boys and girls clubs would emphasize these things, how much more interested they would be in their homes. In our schools we should no longer say, "Now, today we are all going to embroider a table cover, or we are all going to make a box, or a lamp shade," without knowing whether a lamp shade is needed and where it is going to be used, but we should have the boys and girls, themselves, determine what are the things they need and the problems they would like to work out, and then from that long list they should be permitted to choose the most vital. Some-

times three or four problems may be carried on in the class room at the same time, again there may be as many different things as there are students in the class.

I have a few things that illustrate some of the problems that our girls carry out. One of the very best ways of teaching design and color is through the hooked rug problem, which many of you have used. Instead of planning a hooked rug just for the sake of designing and making a hooked rug, the girl, of course, decides that she needs a hooked rug and knows where it is to go. She knows what colors are necessary to make her room more attractive, so she considers this in planning her color scheme.

Examples of Work Shown.

Each student has a very different type of design, and a different size and shape. The girls take their old clothes, and ask their friends for others and wash and dye them the colors they desire. Very old blankets, knit under garments, jersey cloth and any soft wools are especially good for this purpose. Silk or cotton hose may be used for foot stools, but they will not stand the wear that wool does. A number of small designs are made by the student, from which is selected one having the most possibilities. This is improved and enlarged on wrapping paper of the size desired and transferred to burlap. You would be surprised to see many girls tear out some bit of color with which she is dissatisfied while hooking her rug. The color may be right in hue and chroma, but it may not be right in value. How can we get students to discriminate like that unless they have something to do in which they are interested?

We have one problem to start our art problems, and the cut paper work in which each girl makes the different units, may be used in so many ways. Dark and light work is followed by color and this is a fine way to determine the right amount of warm and cool colors, as well as pleasing combinations.

You realize that our girls come to us without art training. There are only a few towns in Iowa where they have art training. Now, I believe that one reason for that is this: that we have not made our art work vital enough in our communities. We have not made the fathers and mothers see that art is a thing that brings more beauty, that often saves a great deal of money, that brings joy into life, that is able to take something that seems almost worthless and make something lovely and beautiful out of it, and until we do that, until we vitalize our art work in our respective communities, we are going to have the school boards do just what they are doing in many places. As soon as they are short of funds, they say, "Well, I don't know who we can dispense with except the art teacher."

Now, that is a dreadful state of affairs. We must sell ourselves in our communities. We must professionalize our profession, and carry it into every phase of home life, and also into industry and

business. The merchants of our city cooperate with us in just a splendid way in everything we want to do. If they want certain posters made, they say, "Will you make some posters for us?" and of course the students are delighted to do it.

They say, "Could you come down and give a talk, or have a student give a talk on textiles suitable for a living room? Could we have a whole series of ten lessons on how to combine our colors in our store so they will look better in our stores, because we can't afford a window decorator?" Of course, we fulfill these requests. Some of our girls during vacation, or after graduation, go into the stores and do some work in the ready-to-wear departments, and also in the interior decorating departments. That does not mean they are fully trained professional interior decorators; it means that the art work is carrying into the community and they may learn through such experience that they are adapted to a certain phase of professional work, aside from teaching and home-making.

We are not making rugs of very brilliant colors, such as they do in many places, and expect the sun and time and wear to fade them so eventually they will fit into their surroundings. We want beautiful things now. We don't want to do as I had to do when I was an art student. My mother wanted a new rug for our living room and so wrote to me in New York to select one. I went to a large reliable rug department. I had heard they had very good values and I had learned in my study that in order to have a really fine design, one must have a fine basis of dark and light. I didn't know nearly so much about color. I had an innate love for color, and I loved to combine colors, but I had no real knowledge of color. I knew nothing about the nine or ten different harmonies which all of our school girls today know. They can combine color because they know about the theories of color, not only because they have feeling for it.

So in the dark salesroom I selected a rug of good pattern with a lot of rich dark blue and sent it home. Mother wrote of receiving the rug, but didn't state that she liked it especially well. I felt sure I had disoppointed my mother, because I knew she had good taste. When I went home in June, the moment I entered the living room the first thing I saw was the rug. It just rose to greet me! I had chosen colors of too strong chroma. They were beautiful in combination and would have been satisfactory in a room with less light. So because I had just arrived home and said, "Mother, may I put that rug on the lawn and let the sun fade it?" she said yes. If I had waited a week, she wouldn't have consented! The neighbors said, "How can you put that lovely rug on the lawn to fade like that?" Mother said, "Well, my daughter selected it and I never did like it very well, and we hope it will be softened." It did soften and we used it for about twenty years afterwards. We don't want hooked rugs, however, of such brilliant colors, so we will have to soften them for

years before they seem harmonious with the setting in which they are placed.

The thing that we stress continually is that it is not necessary to spend a great deal of money to achieve beauty. Rather, beauty is the result of the application of the principles of art, of fine feeling for form, line, texture and color, and due consideration to the place where an object is to be placed. We are not buying just because a thing is lovely; we must think of it in combination with what it is to be used and where it is to be used.

We need to have more art in our industry. In making textile designs it is just as easy to conform to the requirements of the manufacturer for reproduction. Upon the length of the copper roll depends the size of the design. The use of as few colors as possible is advisable so as to lessen the expense of manufacture. The few girls who enter the commercial field will at least have some knowledge that will be helpful.

Too many of our industries have foreign designers. We have sold to France and to Europe millions of dollars worth of raw material. They make this raw material and with their art-trained youth—and they see that every child that has talent may go on and develop, that irrespective of whether or not the child has means—they make things that we buy back at millions and millions of dollars of increase.

Since the war we have developed many more designers in the textile field and various other fields of design, but we need to encourage our children in school to design well anything they do. We have spent too much time on trivial things that have very little art value. Instead of cutting and painting many little things from nature, would it not be better to have little folks go out and study these things in their natural habitat? To teach the beauty of the flowers as they grow, and to be sure to instil in the minds of the children the fact that they are not going to pick many of the flowers, but that they are going to leave most of them so that children hundreds and hundreds of years hence may have similar beautiful flowers. It means so much to go to the big out of doors to enjoy things. I believe we have spent too much time painting landscapes that come by accident.

I remember I taught landscape work as follows: "Children, I want you to be sure to look at the sunset tonight, because tomorrow we are going to paint it."

That made them observe Nature, to be sure, but the next day we painted not the hills as they appeared against the sky, but trees. We put a few little spots of color in for trees, turned the paper upside down and allowed the color to run into accidental tree shapes. How little did real observation and appreciation have to do with the final creation! Would it not have been better to have taken the group of children out to see the sunset and to have had them make the following observations? At sunset time the hills are silhouetted against

the sky, the green color of the grass is now lost, the world is enveloped in soft gray, blue or lavender tones. The amount of brilliant color in the sky is small as compared to the vast amount of grayed tones. To follow such an observation by the study of landscapes by fine masters would do much to create appreciation, not only for Nature, but for landscape Art.

Coming back to interior house design, one of the first things worth while is to have a student use her room as an art problem. I wish you might see a college girl's room before she has had design and after having taken work in interior. One wonders how any student could concentrate in such surroundings. The mirror may be covered with every kind of little thing that you could possibly expect to find, invitations, dance programs, favors, photos, etcetera. She doesn't put these up to show that she is popular, but because each little trifle brings back some happy time in her freshman life. Her room is filled with covers of magazines and movie stars of both sexes. How may such things be counteracted? One way would be to have her make a portfolio or box such as these in which to place such belongings. An exhibit of fine inexpensive prints such as we have had in the college library might help inspire a student to have one good print rather than many inferior ones.

After a study of good proportion and spacing, the rug in the girl's room will no longer remain caty-cornered, but will be placed with the edges paralled to the sides of the room. After a study of furniture good in design, I have heard girls exclaim "I have never noticed lines in furniture before. I had no idea there was such a difference in proportion and line." "I am going to cover the ugly mid-Victorian chair that I have in my room at home and make it look respectable." "I believe we have a bed something like that in our barn. I am going to get it out the next time I go home and refinish it." "It's such fun to combine furniture for use. I am going to see that father has a real comfortable nook in the living room, and that mother doesn't have to get up every time she wants her book or sewing. End tables are such a necessity."

In life we have a great many problems that may be solved if we will but give them the proper attention. Sometimes members of the same family do not agree as to the way of solving them. I have a very dear friend whose husband was very determined to keep the dark oak trim in the down stairs rooms, but they compromised by having the bedrooms enameled in light, soft color. It is possible to make a living room with dark oak just as attractive as a colonial living room in light colors, but the treatment of the rooms would be quite different. Every color is beautiful, if it is in the right place. A great deal of experimentation is necessary before arriving at a proper solution of the many problems of furnishing. In our Applied Art Department we are fortunate to have a large laboratory that is over

forty feet square and which is large enough for the girls to lay out small houses which they plan. Each girl plans a house and landscapes the grounds under the supervision of expert advice. We have had the landscape architectural instructor come over to criticise their designs. A more ideal way would be to have each student take a course in landscaping in a small home and that is advised as an elective. The sum of $6,000.00 is the budget for the lot, house, landscaping, interior finish and furnishing. The student budgets this amount according to the location in which she lives. In most cases a lot is chosen at the outskirts of town and the house is planned in relation to the site. The various types of architecture that have influenced American home architecture are studied and after a floor plan has been selected from a number planned it is interpreted in various styles, among them one of the colonial types, English, or Prairie. Visits to study both exteriors and interiors aid greatly in assisting the students to visualize their little dream houses. Careful budgets for the furnishing of each room are worked out. Drawings and color schemes and materials as well as practical experience in the selection and arrangement of furniture form the laboratory problems. The climax of the year for the interior house design classes during the Spring quarter is the furnishing of the Better Homes House. They are simply thrilled with this project and I know of no piece of work that may bring greater returns in appreciation and experience. I hope that all of you in your communities will next year cooperate in a splendid way with the Better Homes of America Committee. Mr. James Ford is the executive director. The offices are on Pennsylvania Avenue, Washington, D. C. You may secure information and helpful material by writing to these headquarters. If you cannot secure a house for the last week of April, which is the National Better Homes Week, do as we have had to do in Ames this year—put it on anyway. The entire community will cooperate and benefit thereby. With yearly interest in this splendid movement we may hope to have in America homes that are not only beautiful, but that carry out our highest ideals in every phase of American life.

Intellectual Values in Arts Education

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A COLLEGE teacher of mine used to delight in the whimsicality that the less one knows about a subject, the more freely he may speak upon it—not being hampered by facts. In approaching the subject of "Intellectual Values in Arts Education," I am reminded of that paradoxical pleasantry. There is, so far as I am informed, no universally accepted definition of "Arts Education," or of "intelligence." I have found the temerity to attack the subject, however, because traditional educational philosophy has often tended to dissociate the two ideas. Like most of you, no doubt, I strongly resent that tendency, because of the conviction that Arts education, properly understood and practiced, constitutes a major contribution to intelligence, likewise properly conceived, both in content and in method. Moreover, I am quite convinced that our professional pride and proper self-respect as Arts educators rise to the high level of a reverence for our work when we fully understand the fundamental role of our contribution to the development of that all-round intelligence which we identify as education in its fullest significance.

For a workable notion of Arts education, let us follow those[1] who conceive of this broad phase of learning as characteristically performance, actively participatory, primarily neuro-muscular; hence, inclusive not only of the Practical Arts, but as well of the Fine Arts and the Vocational. This statement is sufficiently comprehensive and adequately exact for present purposes; happily, too, it is succinct enough to permit some desirable elaboration in our consideration of intelligence. For, despite the whimsicality of my former college professor, I venture to attempt some elaboration of this concept, even from a frankly philosophical approach.

The topic has not been neglected. Indeed, as a subject of study and discussion, intelligence has quite outgrown the textbooks—those eddies of erudition useful chiefly for staid classroom purposes because of their tendency towards stagnation; has swelled tremendously the flow of current literature of popular, semi-scientific character so keenly sought by an avid reading public. Despite this lively interest in the subject, however, and the volume of discussion popularly called forth, the concept of intelligence grows in mystery. Indeed, it often seems that intelligence might just as well be consigned to the status of ether, radio, relativity, and other such intangible, mostly undefinable somethings, hypothecated, talked about, utilized for interesting

and even very beneficial purposes, without any very clear understanding of their real meaning.

Not that the human mind may ever lose its curiosity concerning these abstract somethings—including itself; on the contrary, no doubt, this very lack of common understanding aids popular interest. And with characteristic energy, American democratic temperament combines an active mass pragmatism with a selective scientific frontal attack upon its mysteries. Hence, intelligence becomes a something to be copiously conjured with in words, to be measured and directed to tremendously beneficial results to individuals and to society. Unfortunately, many of us who are genuinely hopeful to see its meaning mastered, are considerably hindered in our own thinking by a harbored suspicion that with the coming of better understanding, intelligence may be identified as a "natural" force of beneficence—master among multiple manifestations of One. And so strong and so persistent is superstition in the realm of immaterial that this growing suspicion becomes a closely guarded skeleton in the closet of conscience.

In the volume of discussion of the past decade relating to intelligence, one thought has been advanced which should make a strong appeal; namely, that intelligence—whatever else it is—is not a single-phased something in all individuals, but that it varies infinitely among them in kind or character, as well as in amount. In other words, while we may agree with the substantial agreement of our highest psychological authorities that intelligence is essentially unitary, this concept does not preclude the notion that also it varies among individuals in kind or quality as well as in quantity.

That intelligence does vary quantitatively among individuals is pretty well established both to common sense and scientific description. That individuals vary in intellectual stature just as certainly as in physical stature, is a matter of rather common acceptance, although we still lack a tested technique and conventionalized terms matching spatial and gravitational measurement and vocabulary to determine and characterize such variations. When we say, for example, that a certain man is six feet tall, weighs 185 pounds, has this or that waist, bust, neck, and head measurement, is blond and slightly bald, all reasonably understanding persons get approximately the same "photograph" of him. But all that we may say of his intellectual stature in terms of "quotients" and "correlations" carries a comparatively dim "psychograph" or "profile" even to the psychological specialist; while to the uninitiated, it means only confusion worse confounded—or as the wags have it, "worse confounded confusion." Despite the lack of relatively dependable measurement and definition of intellectual stature, however, the quaintitative concept is fairy well established.

The qualitative concept of intelligence, on the other hand, has not thus far commanded the attention that it undoubtedly deserves—and for the same reason, roughly speaking, that Arts education has

not always heretofore enjoyed the prestige it should have; a serious lack, for together they carry suggestions of tremendous significance to a civilization being constructed out of the materials of industrial democracy. The concept here referred to is that within virtually an infinite complexity, there are kinds or qualities of intelligence which have been roughly classified as academic (abstract, verbal, ideational), mechanical and social.[2] While this concept has long been dimly held, and was definitely advanced nearly a decade ago, discussion of it may not yet be based upon any considerable body of scientific data. The whole field of research into the intellectual is nascent; and for its social phases, especially, objective evidence is difficult, restricted, and sometimes contradictory. Indeed, what is possibly the best basis for classifying and considering intelligence as the trinity indicated, is found in historic art and philosophy rather than in scientific data.

Such a procedure is not lacking in precedent; in fact, it may fairly be claimed in harmony with established sequence in all human progress. Urged on by instinct and environment—in what composition we do not yet know (despite all the National Society has told us about "Nature and Nurture")[3]—man acts; then finding himself acting in a certain way, he formulates a philosophy to explain his action or make explicit the hidden forces which move him. Finally, science comes forward to justify or condemn his course. The ancient mythologies may be cited as cases in point; and may it not be that Occidental religion is now passing into the third stage of the cycle? Here the scientist may point out that in this continuous round of progress his contribution is the dominant influence; possibly he may even establish the primacy of science in social betterment—when he has satisfactorily solved the classic problem of precedence between the hen and the egg. Even when he has done this, however, our scientist shall have to turn philosopher to find the answer to that profounder question of "why is" either the hen or the egg. Philosophy, prophetic as well as pragmatic, must always closely accompany science if progress is to be made.

Let us philosophize then, briefly, upon this theory of an intellectual trinity in humankind. It is appealing, among other things, because of the accompanying conviction that among these major phases of intelligence there is now an epochal manifestation of that which is called the mechanical, obscuring both the academic and the social—the last named to a degree, in fact, possibly hazardous to the whole structure of civilization. This has not always been true; and in examining this notion of a three-type intelligence, history may supply considerable illumination upon the upspringing and place of each phase in the progress of civilization.

The long period of racial infancy was undoubtedly an era of academic domination. Starting in some far, dim past, recorded only in biologic phenomena, an indistinct ancestry built upon a minimum of

mechanical performance a series of really marvelous structures of academic content. Always the mechanical intelligence was undeveloped or subordinated—utilized only as a brazier to exalt the flare of academic splendor that illumined the centuries and their civilizations antedating our own, each in turn to burn itself out and fall as a spent torch along the path of human progress. Arabic or Hebraic, Roman or Greek, Babylonian or Egyptian, civilizations that recede in close formation down the corridor of centuries gone by until they fade upon the horizon of time into the indistinctness of alluring afterglow—each and every one has been an upward surge preeminently of the academic intelligence.

And each in turn has faltered or disappeared, for the reason that that which is an indissoluble trinity cannot survive the neglect of any of its parts. Ancient civilizations have fallen because in their narrow domination by the academic intelligence, the mechanical has been suppressed and the social denied, a condition consequent to the enslavement of majorities to do the work of the world without opportunity to share its amenities; which were always preempted by "intellectual" (academic) minorities. Modernity may possess no phenomena superior to the philosophy and fine artistry of academic antiquity; yet those achievements resulted in the ennoblement of but a few, and in the degradation of the many. The marvelous material evidences of ancient civilizations, persistent in fact or in legend—pyramids of Egypt, hanging gardens of Babylon, temple of Jerusalem, or palace of Bagdad—strike the modern mind with awe rather than with admiration when it is recalled that they were wrought out of the bone and sinew, out of the breath and blood of degraded man—and womankind under the driver's scourge. As such, despite their seeming splendor, they were dead, dispirited things, incapable of sustained ennobling appeal to their own ages, and interesting to ours chiefly because they represent the crowning burden with which an academic intellectuality crushed the spirit of the common man and invited social rot or revolt against a spectacular but artificial civilization which an isolated leadership had set up.

None of them lacked in noble thought. Every people that has in any time lifted aloft the torch of civilization has had an exalted philosophy to rationalize and sustain for a while its action; but our recognition of its sublime ideals need not blind us to its bias and discord, and consequently to the cruel foundation upon which it was built. Even the Hebrew philosophy, among the noblest of them all, had to be purified by the blood and spirit of that exalted Carpenter who built both houses and men and women to inhabit them, before it was transformed from the spiritual gropings of a few bickering tribes into a possible world religion. The clay grounds of Jordan and the summits of Lebanon which paid tribute to the earthly greatness of a Solomon were as sordid sources of luster as were the quarries

of the Nile or the brick pits of Babylon; and the appearances of engineering prowess they made possible displayed everything of mass degradgation and nothing of the possible uplifting of all men, promised by the modern development of the mechanical intelligence. Temple and tomb to exalt the ancient great in life or in memory were made not of brick or stone or timber, but of the broken bodies of men.

Sorry appearances of progress they were, since they disclosed nothing of social enlightenment, but everything of social blindness—unplummetable abyss between superior leaders and servile led. Ritualistic pomp and panoply of worship or war disclosed nothing of spiritual fellowship such as an awakening world democracy strives for, but in every step and gesture the curse of "intellectual" caste. It was the reign of the academic mind, and no Attila or Caesar ever was more pittiless. For mechanical intelligence it exploited the physical strength of multitudes of men—and equally of women and for even greater length of years; for ancient servility as a basis of earthly grandeur has been strikingly feminine. For social intelligence it knew no substitute, because it recognized no need for such, beyond the charmed circle of its own fortunate few. Only those merited social consideration who thought profoundly within a prescribed and narrow range; who surpassed in controlling the activities of others through emotionalized mores, which were magic to the common minded. The many who were ruled by those emotionalized attitudes of superstition and fear, and who bowed down to intellectual mastery to do the exhausting work of the world, were without the social pale; they were machines, means, not men. In this manner and for unknown centuries, suppressing the mechanical intelligence and ignoring the social, humanity stumbled onward, building one after another phantasmal structure of civilization.

History may never trace to their beginnings the influences that finally vitalized the mechanical intelligence of mankind, but it does record that something less than two hundred years ago came a change so sudden and so powerful as to earn the designation of "Industrial Revolution." Undoubtedly the mechanical urge from within and from without had been at work since the beginning of time—is that, indeed, which the finite mind identifies with creation. But its unbinding in man seemed abrupt; and so tremendous was its power that no known civilization of the past ever accumulated achievements comparable to those of the last two hundred years.

Probably no one has presented a clearer conception of the comparative results of this sudden stirring of the mechanical intelligence than Robinson[4] in translating the total life of the race into the life of a fifty-year-old people. Five hundred thousand years, more or less, of humankind, forty-nine fiftieths of which is lost in prehistoric darkness, means little to finite mind; but when telescoped into one life span of fifty years, a close-up of achievement is pictured, startling in

significance. Upon the whole, it points unmistakably to greater progress, measured in terms of general human welfare, within the past two centuries, than within the unknown eons theretofore—envision as we may the bestial state from which man emerged. This means that upon a fifty-year scale of life, more progress has been made within the last year than within the forty-nine years preceding. Consider with Dr. Robinson the recency of scientific discovery and invention which have brought within the reach of common man satisfactions impossible and perhaps unthinkable even to the "intellectual" caste of former civilizations.

In the life of this fifty-year-old people, agriculture as distinct from pastoral nomadism is but one year old. Writing is a development of the past six months. Christianity—the most profound manifestation of the social intelligence—is two months old; and already jeapordized in our exaltation of the academic and mechanical! The printing press is only two weeks old, and the steam engine but one week in use; yet think what the impression of thought upon paper and the application of steam to machinery have done for human progress in their fortnight of time! The steamboat and the railway train are only two or three days old, and the secrets of electrical use were learned but yesterday. The automobile and airships are devices of today—fiftieth anniversary gifts in the life of this half-century old race; and the radio is but the gossipy whisperings of developing fame or scandal of the moment. New, also, alas, are the submarine, tank, death bomb, poison gas, and other means of torture or destruction mothered by "necessity" in the hell of the most cruel war known to history—a war which set in tremor the entire structure of a civilization lacking in stabilizing matrix, lacking the binding power of a well-developed social intelligence; had we had this, the war would not have been.

Now nothing short of sheer pessimism or perversity can predict or desire arrest of the mechanical intelligence, provided comparable development of other phases may also be assured. As to the abstract or academic, there need be no concern; for contrary to the reactionaries who decry modern mechanical progress and preach return to an academic oligarchy, there is no real conflict among the various phases of intelligence so long as they keep pace. In lifting the level of the common man the mechanical intelligence multiplies opportunities for academic achievement, also. There is today more talent and more time for appreciation of the spirit of truth and beauty in marble and canvas, in epic and oratoria, than any prior period recorded in history. We are constantly assured that America is approaching a level of intelligence whereon high school completion will constitute the basic education of the Nation. What an audience for modern masters of the academic arts, an audience brought under their sway by marvelous mechanizations of forces, if they will but devote

their talents to service rather than to scorn for their hearers and for the means at hand for moving them!

Not only is there no conflict between the academic and the mechanical intelligence; they work wonderfully together. Our amazing modern structure of civilization is not the work of the mechanical intelligence alone, nor is the academic intelligence threatened with decay. Much of the vigor of the latter, however, is being redirected. That ideational intellectuality which formerly chanted its paeans of superiority in languages foreign to the common tongue now turns itself to the task of defining a sound life philosophy and its laws here and now, by observance and use of which all living may be ennobled. Academic and mechanical intelligence, science and invention, now join in effort and achievement for the common good. Neither can permanently prosper without the other. Yeomans is right in declaring that without the hand of the worker there never could have been the brain of the thinker. But neither may be debased without inviting ruin. Academic and mechanical intelligence working together are now building the most remarkable civilization the world has ever known. But—the question is inevitable and startling in import—are they building securely? In reality they supply only the gross materials for the structure. If it is to endure, its materials must be firmly cemented together; for a building is no stronger than its binding.

Evidences of the social intelligence are as old as history; we cannot conceive of human life without it. The miracle of living creates its own urge to worship, and from this spring all the impulses of the good life. And yet, after these unknown ages, the social intelligence constitutes the one great hazard to human welfare and happiness. There are many explanations of this, and there may be more than one reason. But one, at least, is patent. In all times and among all peoples, a religion of some sort has constituted the core of those tenderer emotions which make for compatibility among men and women. Directly or indirectly, "those highly emotionalized *mores*,"[5] which we know as religion, have been the strongest stabilizing factors in human progress. Yet, as long as they were preponderantly emotion among the masses, they were all too often a means to serve the selfish ends of the understanding few; and all to often exploited as such. This fact, and the much more significant rise of the mechanical intelligence, which has lifted a breaking load from the shoulders of the common man and made it possible for him to look up to a higher master than any man, have weakened the will to worship in the former way. Superstitious fear has largely departed, and the reverence of understanding grows slowly. The general level of intelligence has outgrown those earlier bounds set by feeling alone; religion as a social control must hereafter be based upon understanding rather than upon blind faith. Years ago, in *Sartor Resartus,* Carlyle exposed the ordeal of passage of an individual from a religion of superstition to one of un-

derstanding, and Durant has amplified the idea in his latest book, "Transition." Now the general level of intelligence has risen until Occidental civilization as a whole is in "transition;" and the ordeal is trying.

To understand clearly this transition from a social intelligence of blind belief to one of understanding, the change itself must be seen as essentially a phenomenal academic-mechanical achievement. Standing in a seemingly middle plane, man turns the telescope yonder upon misty "Magellenic Isles," spiral nebulae, protons and electrons of interstellar space; the spectroscope here upon the newly discovered order of the atom—solar systems of sub-microscopic regions. "There is today," says the scientist, "more chemistry in the atom than there was in all inorganic chemistry a few years ago;" and again, more heredity in the microscopic chromosome than there was in all biology prior to the last birthday of our fifty-year-old race; "more crystal structure research by X-ray now than research in all mineralogy when Agassiz came to America." By means of X-ray in vacua a whole new series of elements is disclosed with a promise of even more meaningful discoveries as complete vacuum is approached and technique of research refined. (For despite the common acceptance of vacuum as nothingness, scientists declare that no one has yet produced a condition of vacuum with fewer gas molecules to the cubic inch than there are human beings on earth!)

And what the academic intelligence discovers, or envisions, the mechanical intelligence contrives to utilize for the satisfaction of the common need. Here, indeed, lies partial explanation of the present phenomenal achievements of the mechanical intelligence; it is putting to use the accumulated findings of centuries of activity of the academic mind. What wonder that within one decade American productivity increases 33 per cent per wage earner, with 25 per cent less labor, with 13 per cent less power and 17 per cent less management personnel per unit of production, and all with 7 per cent less working time per man! To be exact, the most remarkable fact in our modern civilization is not the volume of scientific discovery, but the utilization of discovered forces for the satisfaction of the recognized needs of all the people. As already pointed out, in the earlier civilizations it was the privilege of a few fortunately conditioned leaders, lacking other mechanical means, to direct the known forces of nature through the sensitive, suffering bodies of less fortunately conditioned many for the doing of the work of the world necessary to the survival of all and the assured luxury of the fortunate few. Modern civilization is building upon slavery, too—but not human slavery. The productive work of the world is being increasingly done by the multiplied forces of nature directed through unfeeling, untiring machinery. All manpower is tending towards guidance of natural forces for the doing of the world's work requisite to the survival of all and to the comfort

of all, to the extent of individual capacity to direct and to enjoy. With the growth of the mechanical intelligence and its cooperation with the academic, the divine gifts of service and reward are rapidly multiplying and increasing among the peoples of the earth. Exhausting toil is not yet entirely eliminated in the rising tide of the mechanical intelligence, but it is in rapid process of passing.

In lieu of other and better means of making life seem worth living to all, academic intellectuality for ages preached a gospel of the dignity of labor performed in sweat and strain—by others. It was a wholesome gospel, as far as it went. Labor may be dignified. Necessary work of the world, done by willing hands, is more than dignity—it is exaltation to him who honestly performs it as a service to self and society. But the rise of the mechanical intelligence, to balance the academic, is making possible a real social-economic democracy, and for the first time in history the mechanical intelligence is eliminating the caste inherent in the color of the collar of the workman. Modernity is making machines its slaves, and at the same time making it possible for workmen to remain men. In the ancient academic civilizations, every "citizen" derived his social-economic satisfactions from the labor of three to ten slaves—human beings who toiled and suffered, sustained only by the husks of this life and the hope of a future one freed from the curse of work. In modern America, we are assured, every man, woman and child commands the equivalent of at

least one hundred slaves—power slaves, unfeeling, untiring machinery!

This repeated reference to the effect of the mechanical intelligence in freeing society more generally than ever before for participation in wholesome, high-principled living, has been made again to stress the profound necessity for development of the social intelligence to maintain an indispensable equilibrium. For with all its blessings to the human race, mechanical intelligence, with its ensuing inventiveness, is not the real index of civilization. This is to be discerned, in larger perspective, rather in social phenomena—war debts, martial measures, international and inter-racial relations; while "close-ups" appear in guise of divorce and juvenile court dockets, penal populations, criminal insane and social degenerates. If the modern structure of civilization falls, it will be due to lack of the cementing power of the social intelligence. On the whole, men and women today are quite able to live "intelligently," and to earn an honest competence for themselves and their dependents. The most difficult lesson to learn is how to live together. Present day ills are not so much academic or economic privation as social incompatibility. This is true of individuals and of peoples. There is too little forbearance in the home and in the business walks of life; indeed, the home seems in greater danger than any other social institution. And as machinization of all the processes of productive effort brings further congestion, increasing social interdependence and economic independence, social maladjustments and schisms will grow to disastrous proportions unless effective amelioration is found.

Certain very definite conclusions from these considerations concerning intelligence and its needs seem inescapable, the most patent of which has often been expressed or implied; viz., that we must develop a social intelligence strong enough securely to bind together this building being reared by the academic and mechanical, or it cannot long continue to stand. A recent collection[6] of discouraging views quotes Dean Inge as saying that "We are witnessing the suicide of a social order, and our descendants will marvel at our madness." In more moderate yet ominous tone Santayana declares that "Civilization is perhaps approaching one of those long winters that overtake it from time to time." Francis Gribble believes that "The historian of the future will write that, sometime in the early part of the twentieth century, the last and most highly organized of the world's civilizations deliberately committed suicide;" and even Professor McDougall warns "As I watch the American nation speeding gaily with invincible optimism, down the road to destruction, I seem to be

1 C. F. Bigelow, "Thirty Years of Practical Arts, Etc.," T. C. Record, April, 1927.
2 Thorndike, "Intelligence and Its Uses," Harpers, CXL (Jan. 1920) 1920: 227.
3 Terman et al, Twenty-seventh Yearbook, Natl. Society for the Study of Education.
4 Robinson, J. H., "The Mind in the Making."
5 Briggs, "Curriculum Problems."
6 Marsh, D. L., "A Study of Character Ideals of Youth and Maturity," The Phi Delta Kappan, April, 1928:182.

contemplating the greatest tragedy in the history of mankind." One need not indict himself as a confirmed pessimist for sharing some of these forebodings, unless we find a will and a way to development of a saving social intelligence.

What conclusion or conviction, if any, may we advance to overcome these fears? Surely there is hope for help from every major social institution, even from the home; but our highest hope undoubtedly inheres in education. This stabilizing of the structure of civilization by equalizing its constituent intelligences is the business-in-chief of the school. The school is society's integrating agency; if it fails, then the whole family of social institutions fails. It must step in to aid and supplement the efforts of any institution that falters—even the church; for a workable religion is the very essence of the social intelligence. Surely nothing is more mistaken than the claim of the emotionalist that secular education is impotent in religious teaching, or more irrational than his demand that the public school be paralleled throughout by a public school of religion. Such naive views attempt sharply to divorce religion from life, and ignore the fundamentals of modern psychology. The religion of the present and the future must be essentially behavior based upon enlightened understanding. The emotionalism of ignorance and the superstition it engenders have brought civilization far; but social control of the future must inhere in full-rounded intelligence fixated in firmly grounded habits—emotionalized attitudes sustained by understanding. These are not incompatible; only the deeply comprehending are capable of deep emotion. No blind faith of ignorance in its loftiest flight of fancy ever revealed to the mind's eye half the ground for worship of a Divine Being that comes from a comprehending vision of facts laid bare by the mechanics of modern science—such as the telescope, the microscope, the spectroscope—disclosing as they do small portions of the marvels of creation in their bewildering complexity. Without some such penetration there is no adequate basis for appreciation of the Deity who directs the ceaseless re-creation of the universe and all that is within it. It is the task of education to make clear to the common mind this foundation for a strongly emotionalized philosophy of life—a living, growing religion; in a very reverent sense to identify science and religion. Indeed,

"What is all science, then," profoundly inquires Alfred Noyes,
"But pure religion, seeking everywhere
The true commandments, and through many forms
The eternal power that bonds all worlds in one?
It is man's age-long struggle to draw near
His Maker, learn His thoughts, discern His law—
A boundless task, in whose infinitude
As in the unfolding light and law of love
Abounds our hope, and our eternal joy."

Finally, deeply conscious of the grave responsibility and at the same time the incomparable opportunity confronting education, I return to the thesis with which I began: viz., that no phase of learning may make a more profound contribution to the development of intelligence than the organic Arts. As a content, from the earliest years and throughout the growing life, they present to the learner the stuff of life itself; as content they are actual life or its veriest similitude. Industrial, commercial, household, agricultural, physical—either social-liberal or the economic which we designate "vocational," and exemplifying all those spiritual promptings described as "fine,"—the Arts phases of education supply the basic materials from which the academic-mechanical intelligence is derived; the understandings and skills out of which arise our soundest emotionalized attitudes, moral, ethical, civic, religious—in short, our philosophy of life.

But as a method in education, the Arts even surpass their content; for they constitute a universal vehicle for whatever type of education may be desired. They become to spiritual learning what the indispensable legumes are to physical existence. In the current (May) number of The Scientific Monthly I have been privileged briefly to point out this parallel under caption of "The 'Nitrogen Cycle' in Education." I commend the idea to your consideration; but shall forbear repetition here excepting to point out the proved fatuity of major dependence upon direct teaching of spiritual values. Intellectual abstractions have proved insufficient even for the emotional morality of academic eras. How much more imperative that a civilization preponderantly compounded of mechanical intelligence should impregnate its educational program with its dominantly active, participatory, neuro-muscular industrial culture! For childhood and youth, the organic Arts must supply the synthesizing, socializing activities from which desirable social behavior, effectively emotionalized, must grow. It is no longer enough for an individual to feel rightly—not enough to think rightly; what Rugg refers to as the "bigness and bedamnedness" of this complex industrial democracy demands nothing less than right *action,* social habituation firmly established through participation in the actuality of our social-industrial life. Only through such thorough moral, ethical, civic and religious training from nativity to maturity may the fittest modern man emerge. And no phase or type of education may ever compete with the Arts in habituations to strongly emotionalized patterns of behavior. It is Arts education which best sets the stage of life-likeness for learning; it is Arts education which best activates and motivates that learning, whether in fixing fact or skill, or in development of personal-social trait or characteristic.

Such a conception of the obligation and opportunity herein presented and the possible profits society may draw from investment in Arts education, defines for us no slight or humble task; rather it

calls upon the Arts educator for a consecration which will severely test his right to be called a servant of society; that high right to be called a "real teacher;" a service whose bounds perhaps are not yet half imagined. For those who seek the facts of life, each scientific discovery but discloses new and expanding realms of an infinite unknown as foundation for a more hopeful and more daring philosophy. Literally, the more subtracted from this unknown, the wider its boundaries grow; but in the illimitableness of God's universe thus dimly exposed may at last be caught the gleam of a promise all the more alluring when based upon a reverence of awe and understanding instead of superstition and fear. To discover and live by and in harmony with divine philosophy and law—what a consummation to seek! And that others may know and live likewise, what a privilege to be a "real teacher!"

I sincerely profess to see in Arts education, properly conceived and practiced, high hope of these achievements. Let me close with what may be a fanciful expression of this belief, chiefly, perhaps, an emotional appeal, yet a tremendous challenge to the professional spirit of the Arts educator to whose labors we look largely for materialization of the sentiment which says,

The world is changing fast; even the child of this day sees
Things that have been hidden from mortal eyes
Since God revealed Himself as light athwart the centuries.

Sees them and understands the wonders they disclose—
The atom's changing structure, harsh in thorn,
Of matchless tenderness in petal of the rose.

The world is changing fast; even the child of this day hears
Sounds that though mute yet have thronged the air
Since God bespoke His blessings first upon the coming years.

Hears them and understands the secrets of their course,
How, borne on wings etherial, instantly
They gird and penetrate the realms of universe.

What will the full day bring? For all thus far achieved is
but the dawn;
Shall we at length tune in to catch the music of the spheres?
Thrill at the voice and presence of loved ones gone beyond?

This is our goal; when unto man's estate has grown this
childhood race,
We shall attune the ear unto the music of God's voice,
Inure the eye unto the aweful splendor of His face.

The Mental Slant of a Real Teacher

MILO H. STUART
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MR. CHAIRMAN, members of the Association. In the preparation of this talk which I am going to give you I worked out a story and tried it on one of the members of my staff. He said, "That reminds me of a story I was reading last night in Latin, written some two thousand years ago." It was as follows: A Roman picked up a stone and threw it at a dog. He made a wild throw and hit his mother-in-law. He paused a moment and said, "Not so bad at that."

So I thought if my story carried him back two thousand years that perhaps it too might have been repeated through the centuries. Therefore, I decided to leave it off.

I am going to the Bible for my theme, not because I claim to be such a biblical student, but because I observe from the brethren of the cloth that, when they assume a text, they automatically have a great deal of latitude in the discussion of the subject.

So my text tonight, following this theme of the Mental Slant of a Great Teacher, may be found in this: The perfect Teacher said to the rich young man, "One thing thou lackest; go and sell all thou hast and distribute it to the poor." And again, "If thou wouldst have riches in heaven, then follow me."

That rich young man had all the equipment that nature could give him. He had position, and yet, in order that he might do some of the great worth while things in life, it was necessary that he dispose of all he possessed and turn his energy to the welfare of the poor who needed it.

The analogy is quite strong, my fellow teachers, that in order that we do our best with youth as entrusted to us, it is necessary that we lay aside some of these worldly things that attract us, make us selfish and isolate us from the main central purpose for which we are employed. I want to get out of this text the proposition that the teacher must lay aside all those things which are foreign to the field of teaching, husband all of his forces, go into the school room and give his all to the uplifting of these boys and girls that are truly in need of a friend and helper. The first slant of a great teacher, then, is that he slants all one way. He can't sell life insurance and go into the school room and be an all-round great teacher. He can't sell real estate on Saturday and after school and come into the school room and be a great teacher. You can't do any of those things which depart from the field in which you work without dissipating your energies, dissi-

pating your purposes, compelling you to come before your class an empty shell. In short, the spirit of a great teacher leads him to slant all in the direction of the work he proposes to do.

Then again, we have men and women with no outside interest who are well trained, employed in a good job, but still another thing is lacking and that is consecration to the sacred task that is committed to them. How are we going to give our all to a piece of work? In the first place we must feel that that job is worth while before we can do it. We have a lot of teachers who have really never considered that they have much of a job. They are almost ashamed to say that they belong to the teaching profession. It seems a sort of humdrum, treadmill piece of work, and they are ashamed of it.

Congressman Purnell, in an address in this city not long ago, used this illustration: He was asked by a certain fraternity in a little country town to come and deliver their memorial oration. In thinking it over, he became anxious to write an oration that would not only be appropriate to the occasion, but one that would show what a memorial meant to those present. The meeting was held in a country church, surrounded by a large burying ground. Just as he was introduced, it occurred to him that he perhaps ought to have some figures as to how many members of this lodge were sleeping on the hillside. As he passed the chairman after being introduced, he leaned over and whispered, "How many of your members are dead?" This provoked the following dialogue:

"H . . . ., none."

"What are you holding this memorial for?"

"It's in the ritual."

So, I wonder sometimes, if that isn't about the way we conduct our work. The only justification we have for doing a thing is the fact that it is in the course of study. No wonder it is carried out in a routine, matter-of-fact way.

It behooves every teacher, then, to think about his job and go about it intelligently. Here is a system of public schools that takes a third or more of the public revenue. An institution in which practically every home of the nation is represented. It is as comprehensive as the country itself. Within its walls are the millions who, in ten or fifteen years, will be the grownups of tomorrow. They talk of all other institutions waning, tottering, etc., but nobody ever suggests that public education is tottering. We drive on and they add to our responsibilities every day.

To belong to that great army of teachers in charge of the future citizens of our land ought to thrill the heart of any man or any woman who is willing to sell all he has and distribute his energies to the boys and girls so much in need of help.

William Jennings Bryan said on a platform in the dining room of this hotel that perhaps he had succeeded in keeping himself before the

public throughout a generation due to the fact that he hitched himself to good causes. When you hitch yourself to a good cause, you succeed because the cause pulls you through. He further stated that he had succeeded in hitching himself to three of four great causes that had succeeded. He left us to pick the unsuccessful one of the four.

Likewise, the teacher must succeed because his cause is worth while and must prevail. We ought to be thrilled by the fact that we have the opportunity to attach ourselves to a cause of such significance and of such consequence.

Now, it means more than attaching ourselves to a cause in order to give our all to the undertaking. It is necessary that we get a thrill; that we get a feeling of the fact that we are a part of a great institution. Attend the Rotary Club, the Kiwanis Club, or any other organization in which the business men get together, and see what interests them. They are not talking about pig iron; they are not talking about hours of labor or problems of shipping. Somebody is proposing they do something for the under-privileged children, or some other humanitarian proposition of that kind. Why, my fellow teachers, those men are simply yearning for the privilege of doing something for people. So they find great joy in doing such extra tasks, working for their fellow men and their children. But it is our privilege to do what they delight to do every hour of every day.

You will pardon me for a personal illustration. A little boy at home said to me, "Daddy, how long have you been principal of Tech?"

I told him, fifteen years. "Where were you before that?" I told him. "How long were you there?" "Where were you before that?" I am not going to tell you all the answers because your addition is too good. I went all the way back answering his questions. When he got the idea that I had been teaching school all my life, he said, "Daddy, did you ever have a real job?"

I have about come to the conclusion that he had it right. A real job—just think about the job I have. Two hundred and forty teachers that I have largely assisted in picking. They are college graduates; they are interested in the thing that interests me. They are the finest group of men and women with whom I could associate, and I meet them every day; and with them a group of five thousand boys and girls coming from the fine homes of our city.

If I could go to the state fair and associate with as many hundreds of people in a single day as I associate with in one day, I would say that I had truly a wonderful time. So it is my privilege to go to a picnic every day and it is your privilege to go to such an association every day. It is a wonderful opportunity to teach, provided our mental attitude is such that we can enter into its thrills and feel that life spent there is worth more than life spent anywhere else. Some of us may lack the disposition and the philosophy to enjoy it. It is all

human; it is all conflict; but out of conflict comes the pleasure. Over in our foundry department they have a large rattler into which they throw the rough castings and then start it rolling around. You would think it would break itself to pieces. After a while it is opened and the castings come out in good shape. The rumbling meant improvement and polish. Yes, I would rather have the rumble in school rooms than the quiet due to suppression. It takes a sympathetic disposition to enter into these human conflicts, see their complications and sense the resulting opportunity.

The Cheerful Cherub had the real philosophy:

"Our troubles help our souls to grow,
They're sent with that design;
I wish that I could see my soul,
I'll bet it's growing fine."

Go into your school room with the attitude that these are the finest boys and girls in the world, but they have never had a chance to knock the rough parts off. They have never had a chance to adjust themselves, when they begin to elbow somebody else. You are the referee of one of the finest social groups that ever comes together. Let us be both inspirational and fair in discharging our responsibilities.

We have a pup at home. He didn't cost a cent; one of those stray pups that just blew in. He has no inheritance; he has no college education; he has no professional training; and yet that pup has a wonderful disposition. You can go right out and kick him and he will look at you with the assurance that there is some mistake about it; you surely didn't intend to hurt him. His disposition is worth everything. The whole neighborhood feeds him because he is so fine-spirited. He comes in and sleeps on the finest home-spun rug that we have, and the neighbors invite him in and he sleeps on orientals, all due to his disposition. I'm not wanting to compare a teacher to a pup, but here are some suggestions as to disposition that are worth thinking about regardless of rank or station.

Now, if we have a teacher with all these essential slants toward his task, he must not lose sight of one additional thing—whatever happens, the pupil must always stand uppermost. You know we get to work on courses of study, a syllabus, an outline, or a demonstration, and almost forget the fact that this whole fabric of public education is put together for the benefit of those boys and girls who come before us daily.

What is subject matter anyhow? Subject matter is nothing in the world but just a means to an end. That is all. It doesn't make so much difference whether you get this across or not, so you get the right results from these boys and girls. Our subject matter is perhaps about as good as we can get together. It has been collected through generation after generation. I am saying nothing against subject matter, but there is nothing sacred in subject matter. The thing for

us to think about is, are we getting ahead with these boys and girls. In fact, subject matter is valuable only in so far as it becomes the right thing to induce the pupil to use his strength and his energy in its accomplishment.

You may take two subjects: this one may be far superior to the other, as a subject, but the other has the greater appeal for a given pupil and tends to bring forth greater application; hence it begins to rival the better subject as an educational agency. This Association represents some of the newer lines of work which have a strong appeal for a large group of talented pupils. It is a Godsend to public education that we have such movements as this Association represents because such boys and girls can take the newer subjects that have stronger appeal and give their all to it, and out of it become trained. There isn't any training in much of our work which we call study in which the pupil reads a sentence, thinks about something else, then reads another and away goes his attention to something remote. There is no training except that you put your all into the task, and that subject which will bring from the pupil his utmost effort is the subject that is most vital in his training.

So we have come to the conclusion, as much as we think of the time-honored subjects, and as much time as we give to them in the program of study, that there may be culture in grease as well as in Greek; that the shop and laboratory have a real place in a complete plan of education.

Look again, subject matter isn't the only thing. There is about as much education in the discipline of the school as there is in the subject matter, and yet we have been looking at discipline as a troublesome proposition. When something happens, somebody throws an eraser or something else, we should make this the occasion to teach some vital facts about group living he evidently does not know.

With our compulsory school laws, we have taken on a new phase of education, which means a welfare program. I read in one of the papers the other day this little sentence: A church board was meeting to see about finishing their new church, and they were seeking gifts. One was bringing in gifts for the organ, others were bringing in gifts for something else. Finally one man said, "I have a man who is willing to give a stained glass window," and the hard-headed chairman said, "Can somebody tell me how much it will cost to get the stain off?"

Now, we have some of the stained glass windows with us, and we have to warm up to the proposition that they belong in the institution supported by the public. We should not kick them out unless some other institution is better prepared to handle them than we are.

So we have a welfare program, a disciplinary program, a subject matter program and a participation program. A big, fine teacher who

is more interested in people than in things, thrives in such an institution, and the teacher without that slant has nothing but misery from the day the school starts until it closes.

With all these qualities, the ideal teacher must be a pace-setter. No doubt you have seen two horses going down a dusty road hitched to the same double-tree, pivoted in the middle, one of them away out in front, and the other behind, taking it leisurely. Yet when the day is over they have walked the same number of miles; they have pulled the same number of pounds. One of them had his nose stuck out where the air was pure, had a sense of victory; the other was back behind where he felt the lash. It pays to be a leader and a pace-setter. You get the joy and the thrill which comes out of putting yourself to the task in proportion to your power and your strength.

Go out into our Indiana forests, and you will find those trees struggling with each other to reach the sunlight and in reaching the sunlight they grow straight; in reaching the sunlight they grow so dense there are no limbs on the side. As a result of that struggle they grow tall and stately, add to their beauty and to their worth. The competition gives you a thrill and gives your comrade a thrill. To be a pace-setter should be a part of the spiritual endeavor of every teacher.

But to be a pace-setter and to run a race that is to endure any length of time calls for a spirit of growth. I went into one of the county seat towns not long ago in Indiana. I saw a billboard which said, "Buy your clothes at the store that is growing."

I thought, what difference does it make to me whether that store is growing or not, and yet there was something about that sign that made me feel that I wanted to go to a progressive store, and after all, it had a little pull.

A city of one hundred thousand wants to grow to two hundred thousand. Nobody knows why, but they just want to grow. The spirit of life everywhere is to grow, and we can only be happy through growth. So I want to close this particular part of my theme by referring you to the way in which a tree grows. A tree has its solid stem; it has its sap layer and its bark. When the food is manufactured in the leaves it has to be sent down through the live part of the bark to the twigs, the stem, the roots and the rootlets. In fact every square inch of surface must have a new layer of bark and a new layer of wood every season. The tree must make enough food materials to put on a new layer all over its being each season. If it fails to put on a new layer of wood and a new layer of bark on a single square inch of its surface, it will forever lose that power, and in that particular spot no growth will ever be possible thereafter.

You will say, why should the tree grow big? The bigger it gets, the bigger the job it has to cover its surface. The bigger it is, the

more the wind strikes it, but it is a law of life that growth and life go together. An so, professionally, my fellow teachers, there is only one way to lengthen professional life, and that is through growth every year, by being finer in disposition, finer in preparation, finer in attitude, finer in community work. This is the only road to long life filled with happiness.

Jesus grew in wisdom and in stature and in favor with God and man, and thus you have the whole proposition that growth is the secret of the whole program. Now, there is no group of teachers any place that is growing faster than the group here because you are in touch with a live and expanding line of work. You are in touch with the business surroundings of our schools. You feel the thrill and the throb of progress and you ought to be able to keep yourselves more thoroughly alive than teachers who must present subject matter that is changing but little. Let me urge, in conclusion, that we give ourselves whole-heartedly to the cause of teaching and that we keep the faith because it is a real privilege these days to be a progressive teacher.

What is a Profession?

MR. FRANK D. SLUTZ
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Dayton, Ohio

MR. CHAIRMAN and Members of the Art Association: All words have ways with them. I like to think about the ways of words. Words begin with a certain original meaning and then they have a long experience, just as we do, and their meaning changes through their experience. That is why I don't like Esperanto. Esperanto never was born normally; never had a boyhood, never had an adolescence; never had a growth. Manufactured in a spectacle shop in Russia, it has about as much relation to a real language as Hawthorne's scarecrow, Feather Top, has to a real human being.

A language has to have a real growth. Every word in it has to have a real growth. I haven't time to cite many examples of this birth of words, and their historical experience, but I do want to cite a few, like "styward." That word was used once to designate the person who took care of the pigs, and finally all the animals, and at last it changed still more and we have steward, which came from that old word styward, or guard of the pigs.

Take another word like the word "marshal." It used to be a person in charge of the stables, and he became so important in military affairs that he finally was known as the man chief in command. What an interesting change that word has had!

Take another word like the word "companion," which means, of course, someone who is a friend or an acquaintance, but a long time ago when it was born, it meant someone who sat down to break bread with you; that was a companion. We are too busy these days to sit down and break bread with our companions. We take a glance at them, talk to them over the telephone, and that is about all we have time for.

What about this word "profession?" I cannot talk about it unless we go into the birth of the word. What can we glean about what a profession should be from the meaning of the word? The word means, in its very nature, to stand up and declare your skill in front of people, to make a declaration of real skill or ability before people—profession. You see what that means. It is the business, if you please, of every profession to admit to its ranks only those who can actually function. It is the business of the Western Arts Association to see to it that nobody is recognized as a member of your profession unless he functions. I don't like this idea of admitting people to professions just because they have certain degrees. I have no brief against degrees. I am talking about using a degree as a proof of function. It does not mean that.

When I send my little girl on the train, I take a bill and tear it in two and give her half and the porter half. I say to her, "Louise, if the porter does the right thing, give him the rest of the one dollar bill."

It seems to me your association, all our associations which are professional, ought to begin to say, that when one graduates from college he gets a degree. After he has functioned ten, fifteen or twenty years, and proved that he is a professional, our associations will give him a degree which recognizes his professional excellence. A. B. in college ought to mean "At bat." It doesn't say a thing about runs or hits or errors. It means simply that we have had a chance to stand up and receive the ball. What we do in the real game is to be determined later on, don't you see?

Oh, my friends, it seems to me so important that in professional organizations there ought to be a rule that one can't hold his place unless he is competent, and that if one is competent, no criticism can take away his place in the association. An association has two functions towards its professional people, to maintain reputations for them if they are functionally powerful, and to dismiss them from professional standing if they don't make good.

Now, that a profession is a matter of function, may cause some unpleasantness. I don't care if it does. That is the price of professional excellence on the basis of this word. I think so many times the word we use is "pre-fession." What is a "pre-fessor?" A chap who announces his ability before the facts. What we are talking about is the pro-fessor, the announcement of skill publicly and based upon function.

Do you know, my friends, there is no pressure in our democracy like the pressure of voluntary standards? I don't mean state standards; I mean that your own organization can say "We demand a certain standard of excellence. It is a voluntary matter; come and take it if you wish; reach it if you can." That is the highest kind of urge of excellence, far higher than state standards. We are falling back all the time, aren't we, upon our dependence upon national and state standardization? It is the voluntary standardization which comes through the voluntary organization of an association like this, which is most effective. That is what the word "profession" means to us in its original nature.

The next step is to ask what has happened to this word in its history. No word stays where it was. What has happened to it in its advance, in its experience? Let us look at it from that angle. Profession, marching forward from its own meaning has come to mean this: a profession is distinguished from a trade or occupation in that it puts persons first and the things and profits second.

Look, if you please, at the profession of law, which is a matter of the relation of persons to each other in terms of property and holdings. It is not an occupation; it is not a trade; it is a profession because it is a personal service. Look at medicine. Medicine has to do with the knowledge of drugs and materia medica, but the whole lilt of medicine in its professional aspects is toward the service of persons. Look at the engineer. I like to talk about engineers. An engineer is a person who uses the secrets of the universe for the sake of making them work for human welfare.

Now, a research artist is not an engineer. A research artist is after the facts. He never becomes an engineer until he makes those facts function for the personal welfare. Business and industry—I dare say this, I think, although some in my audience are in business and in industry—are largely occupations yet, and they will become professions when the persons stand above the profits or the things. When a business says, "Not our cash registers, not our frigidaires—(I am speaking of my own town; I haven't the right to speak of yours)—are the measure of our business, but the kind of men we produce in this industry, they are the measure of our industry," just then business becomes a profession, and not until then.

So in your profession, will you make this resolution: that your boys and your girls and the people concerned are always first in your plans, above the things and the materials and programs and the courses of study? In that measure you have a profession.

I have met teachers—perhaps you never have—who are still in the trade or occupational stages of this work. They hear recitations, and they accept the profits, but they are not first and last servants of the people concerned; in the measure that they are such servants, they are professional.

I am not content this morning to talk about the origin of the word "profession" and its history. Every word has a future. I should like to look ahead a little bit and ask what indications are on the horizon in the advance of the meaning of this word "profession" which we use so glibly. I see three advances in the meaning of the word. I hope you will consider with me these advances.

In the first place, I am now talking purely of the future. I have talked about origins; I have talked about history; now I am talking about futures. A profession must be a movement and not an institution. An institution, if you please, is dedicated to an idea. Someone has an idea and builds an institution around it to preserve the idea. Someone plants a tree and puts a boxing around it to preserve the tree. An institution is the boxing; sometimes it becomes more important than the tree. Institutions don't want any new ideas. No, they don't. Why not? Because they were founded to preserve an idea, and it is their business to keep on preserving that idea. An institution very easily gravitates toward convenience and rules and regulations and traditions and custom and procedure.

Put it this way: An institution loves to hear the whir and sound of its own wheels, and to think it is going somewhere. But the clutch is out. It sits right still. Officers spend a great deal of time oiling it and there is a tremendous amount of polishing, varnishing, and a terrible popping of the exhaust, but the institution stays right there, and it thinks the noise of the wheels means progress. Do you know of any institution? I wouldn't name one for the world because I don't have to. You can all name your own.

What is a movement? A movement has for its anthem not "Faith of Our Fathers," but "We're Marching On, Glory Hallelujah." A movement invites young blood, invites new leadership, plans new kinds of programs instead of building constantly and all the time around one little special coterie which appears all the time. I don't know about your programs. I am simply saying a movement marches on; a profession can't afford to be an institution; it has to be a movement. I see that in the future. Medicine is admirably that very thing.

I see a second future; A real profession tomorrow and even today must create and produce first and analyze and criticize secondly. In my own graduate work in English I used to be in the classes of Dr. George Baker then of Harvard. I saw once on his desk an envelope marked "Return in ten days to Winston Churchill," evidently one of that author's manuscripts. That manuscript struck me across the heart. I said, "Here you are out for a degree because you can tear apart and analyze and criticize. Here is Winston Churchill who couldn't get a Ph. D. but if you can take his novel and criticize and analyze it you can have a Doctor's degree."

In other words, the prizes in that kind of an institution are not for production, and creation, but for analysis. That is secondary. A

chap in Harvard decided to write his thesis for his Doctor's degree on the strong verbs in Chaucer. Another of my friends was cataloging all the infinitives in Shakespeare. I doubt if the Bard of Avon knew what an infinitive was. This man couldn't write a scene, but he gets his Ph. D. for analysis. It is low rate business compared to creation.

A profession tomorrow must be made up of those first, who create and produce, and criticize and analyze secondarily. We do need some kind of organization which shall have a keen eye for young and growing geniuses, and which shall encourage them to produce. There is no such organization in America. A chap who wants to put his goods upon the market productively invents a machine—there is a great opportunity for the machine. The chap who wishes to write poetry or produce pictures or who can produce music has mighty little encouragement because we haven't come in America to encouraging that kind of production.

I see tomorrow a third thing in the profession. A profession is organized to give and not to get. A profession is organized to create skill in those who belong to it, by association, by comparison of methods. It is not organized to make a great mass attack upon the customer to get more money out of him.

I don't object at all to collective bargaining, but you must not call that professional. That is another proposition. A profession is interested in increasing the skill of its people so they can give more. It is a high standard.

I want to speak about architecture. We have a rule in architecture that on a certain plan an architect gets a four, five or six per cent fee. Do you see the great temptation that lies in that? If he wishes to present a more economical plan to the person he is working for, every cut he makes in the plans cuts his own fee, and it takes a corking fine man to cut his own fee for the sake of his customer, but if he does it he is professional. Personally I don't believe in that fee business very much. The temptation is so great. A real profession says, "Our first business is to give; our first business is to contribute and not to hoard possessions or to increase them."

Now, I don't want to speak merely of the origin of the word profession and its history and future; I do think I ought to say a word to you about your own particular kind of profession. I ought to speak specifically. Specifically I see two items in the profession of teaching arts and crafts, two items particularly belonging to your own work. I want to mention them; they come into this definition of what a profession is.

First, your profession, in this day of intellectual arrogance, when so many men say, "There is no universe except that small one which I can make a map of; nothing that can't be proved or demonstrated, nothing which can't be put into blue prints exists"—(my friends,

that is mental arrogance)—makes this contribution, that between the lines and in the over-tones and in the under-tones and through and above and beneath the things that can be demonstrated, there is an incomprehensible but glorious world of beauty and color, symmetry, hope, faith and longing.

In this day there is a tendency to say, "Man is a machine and the universe is bounded by the incomplete intellectuality which that particular machine has developed." This is unscientific. But your profession, through your teaching and writing and producing stands for an intangible world which is gloriously tangible, for the spirit can appreciate it.

I see something else in your profession. I see a second specific contribution. You people speak a language as wide as the world. Everybody understands it. No nation has a monopoly on a glorious sunset. People who could not say two words to each other can stand arm in arm and enjoy it. Mona Lisa smiles at Germans and Frenchmen alike. In the language of art, there is no declension, and its idioms are easily learned because it is spoken by the heart. That is what your profession is.

I am not going to talk a long time. I do want to bundle up what I have said; I don't want to leave it in this scattered shape with you.

I have said that a profession is, in the original meaning of the word, an organization dedicated to membership on the part of those who function, and that it has a right to exclude from its membership those who cannot function, no matter what their pedigrees.

In the second place, I have said that a profession historically has come to be that kind of exercise of faculty which is devoted first of all, to personal values, and secondarily to things.

In speaking of its future, I have said that a profession is not an institution, but a movement that marches on. I have said that a profession is devoted to production and creation first, and to criticism and analysis secondly. I have said that a profession is an organization which pledges itself to give and to contribute instead of to get, and to possess en masse.

And, speaking specifically of your own profession, I have said that you make two contributions to the whole professional world which are particularly yours, and those are: first of all, you stand for a world of values, a world of color, a world appreciation, a world of impulse and feelings that cannot be explained. You stand for a world that reaches out far beyond the laboratory and demonstration and far beyond the blue prints and far beyond the equations; and in the second place, you contribute this: you contribute now a living world language, which everybody can understand because its sentences and its paragraphs come from the heart.

I hope you will not imitate other professions, but that you will organize yourselves upon lines as new, as fresh, as invigorating and as inspiring as the very art work you do.

Report of Federated Council on Art Education

MARY C. SCOVEL
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The Federated Council on Art Education

CHAIRMAN and Members of the Western Arts Association: I come before you this morning as chairman of the delegates who represent this Association in the Federated Council on Art Education.

The work of this Council is interesting to you—or should be—as it concerns you very vitally. For the benefit of those who may not have heard the report of our President, Mr. Royal Bailey Farnum, I would like to give a short review of its history—then tell you of its accomplishments to date and a few of its future ideals.

For some years we have been discussing in these art meetings various phases of art education, papers have been read and discussed, oftimes with no tangible results.

"Recent tendencies in the general development of art knowledge

throughout the United States, have given special emphasis to the subject of art in education. Higher standards in general education, with the attending demands for better professional preparation of the teacher, have, in turn, focused attention upon the training of the art director and instructor. The questions of professional training and degrees have been forced to the front."

Therefore to endeavor to solve some of these problems through concerted action a resolution was passed at the Dayton meeting of the Western Arts Association in May, 1924, to establish a National Commission on Art Education. This was changed later to "The Federated Council on Art Education."

This Council was organized at the Art Institute in December, 1924.

The Associations invited to join in this movement and to send *three* delegates as representatives of each organization were as follows:

American Federation of Arts
American Institute of Architects
College Art Association
Eastern Arts Association
Western Arts Association

All except the College Art Association were represented at the initial meeting, December 29, 1924.

At this time by-laws were adopted, completing the organization of the Council. The officers were as follows:

President: Royal Bailey Farnum, E. A. A., Boston, Mass.
Vice-President: Mary C. Scovel, W. A. A., Chicago, Ill.
Secretary: Leon L. Winslow, A. F. A., Baltimore, Md.
Treasurer: James C. Boudreau, E. A. A., Pittsburgh, Pa.

The first work of the Council was to seek support of the Carnegie Corporation. Through the efforts of Mr. Farnum, with the aid of Mr. Valentine Kirby and Mr. Raymond P. Ensign, the generous gift of $6,000.00 was secured for the Federated Council to carry on its investigations, for stationery and travel expenses.

The First Annual Meeting was held in Cleveland, May, 1925, in conjunction with the American Federation of Arts Convention. At this time the Art Museum Directors became members of the Council, and four co-operating members were added to the list of workers, Mr. Raymond P. Ensign, Mr. Valentine Kirby, Mr. Walter Sargent and Mr. Lorado Taft.

Without a thorough knowledge of art situations no permanent remedy can be suggested—therefore at this time the Council acts as a clearing house, undertaking to make careful studies of a number of difficult problems which have confronted the various associations represented in the field of Art Education.

"The Council members feel their task is that of investigation,

council and recommendation. Until this is accomplished the Council will refrain from promoting new art situations or broadcasting art propaganda or assuming the initiative in this educational field."

Note: This will answer some of the many questions that have arisen—notably, is this Federated Council going to interfere with our present ideas of individual work in art—or change our art teaching? The raising of the general standards of Education will do this, not the Council.

At this meeting committees were appointed to make studies in the following fields:

Elementary School Art
Secondary School Art
College Art
Training of Art Teachers
Art Schools
Art Education in Museums
Art Terminology

"These committees formed working groups in their respective fields throughout the United States. In the school studies the problem was limited to Aims and Objectives and Minimum Essentials, including

a—content
b—time
c—credits in secondary schools, art schools and colleges
d—degrees in art schools

"The response of educators to the assistance of the chairmen of these various committees was most generous and untiring. The same readiness to assist came from those without the art field, as from those especially interested in art education."

The Second Annual Meeting of the Council was held at the Metropolitan Museum New York City, February 11-12, 1926. At this time two more associations had been voted into membership, The College Art Association and The Pacific Art Association.

"The meeting was called for the purpose of discussing the first carefully prepared drafts of several committee reports. It was characterized by a spirit of professional interest, broad minded discussion and animated argument."

The committee reports were as follows:

Elementary School Art . Bess Eleanor Foster
High School Art . . . James C. Boudreau
College Art . . . . . Prof. Holmes Smith
Art Museums . . . . . Florence Levy
Art Schools . . . . . J. Arthur MacLean
Terminology . . Prof. William G. Whitford

Miss Foster's report contained the following:

Broad and Specific Objectives
Minimum Content Essentials
General suggestions relating to
a—Social and Civic Relationship
b—Art education in relation to recent advancement in General Elementary School Education
c—Development of Skills
d—Scientific Educational Research by Art Educators
e—Problems of Increasing Numbers
f—Teacher Training

This covered eight grades.

The above report was based upon information and returns from committees in every part of the country. Miss Foster's contribution to the Council and to you as Art Instructors cannot be estimated. Her efforts were untiring and the hours spent upon this valuable report unlimited. This report, after being submitted to leading educational authorities in both general and special education, has been published and released to the public.

The above-mentioned reports were discussed, but each chairman requested more time for completion. Also at this meeting a new committee on Teacher Training was appointed by President Farnum, consisting of

Miss Helen E. Cleaves, Boston, Chairman
Mrs. Clara R. S. Waters, Santa Rosa, California
Mr. Raymond P. Ensign, Chicago

It was generally agreed that the Association should expect a report on the work of the Council at their annual meetings and that the representatives should hold themselves in readiness for such reports. Annual dues of $30.00 seemed a just tax for each Association, this to be paid annually to cover stationery and postage, at least.

The Annual Meeting for the year *1927* was omitted. The Council members voted to use the money at hand to furnish data needed for the completion of the reports so they might be published as early as possible.

The Third Annual Meeting of the Council has just been held in Pittsburgh, Pennsylvania, March 16-17, 1928, at Carnegie Museum. Eighteen members were present.

It was noted that the Report of the Committee on Art Instruction in Colleges and Universities—Prof. Holmes Smith, chairman—had been released and published in the latter part of 1927. This report has been out but a very short time. It is a searching study of the situation and has already attracted the keen attention of many Professors, Department Heads and Art Instructors in our Colleges and Universities.

The report is too comprehensive to give you here. Just a few of the topics may give you an idea of this valuable information with its suggestions, as follows:

General Problems of College Art Instruction
Review of Results of Inquiry
College Entrance Credits for Work in Art
Credit Towards Bachelors' Degrees
College Degrees in Art
College Courses in Art
The Special Degree in Art
Requirements for the Special Degree
Appendix III has a bibliography on College Art Instruction—prepared by Leon L. Winslow.

Quotation from President Farnum's address:

"Already the Council has become a most valuable clearing house for problems pertaining to Art Education. I have had numerous letters asking that this question and that be taken up by the Council. There is a growing feeling abroad that in this Council lies the hope for a suggested solution of many perplexing situations now existing in the field. One, for example, is the High School problem, a condition which both the American Federation of Arts and the Arts Committee of the Carnegie Corporation have discussed with all seriousness in executive session. Another is the problem of training the Art Instructor for both public school and college, while a third is the recognition of some kind of degree from the four year school of art that is not connected with a college or university. We already have committees appointed to develop studies along these lines."

The serious problem of financing this Council is now before us. The Carnegie Corporation has given another $6,000.00 for carrying on the work. It takes about $3,000.00 per year to carry on. A committee on General Publicity has been appointed with Prof. John Pickard, Columbia, Missouri, as chairman. Therefore if any of our Associations are approached by this committee for a place on your annual program, do give it a timely and prominent place. If you are asked for money, remember this Council is working and working hard—without individual remuneration—for you, is working toward the organization and recognition of Art in the Educational Field. We know we have accomplished much, but feel that ten years more at least must be given us to complete and establish these problems.

If you know of any wealthy person interested in Art Education, aim to arouse this interest for the benefit of the Federated Council!

A few days before the Pittsburgh meeting a conference was held at the Cleveland School of Art and resolutions were drawn up and presented to the Council. In a few words, this resolution asked the Council to appoint a committee from its members to work with a

second committee which would be drawn from the various accrediting Associations of the United States—this joint committee to study the problems of preparation of Art Teachers and the crediting of an Art Degree from art schools of *"high standing."* It is the opinion of the President and members of the Council that the matter of art training, art credits and degrees should not go to the academic crediting bodies, as North Central Association, South Association, New England Association, and others. A new situation has arisen in the educational field and it is the subject of Art Education. The Federated Council is the clearing house for just such adjustments—therefore this resolution was referred to the Committee on "Typical Courses in Art in Colleges," consisting of

Prof. Holmes Smith, Chairman
John Pickard
A. B. Clark
J. A. MacLean
Mary C. Scovel

We expect to be very busy this coming winter, and hope to give you, in the next annual report, some final and valuable suggestions and conclusions.

The report on "Terminology" by Mr. William G. Whitford was discussed and reported for printing. This will be released in a short time. Mr. Whitford has had by far the most perplexing and difficult report to handle. It was given you in detail at our last meeting in Milwaukee, and is printed in our Annual Report, so those who did not hear it will find it interesting reading matter. Mr. Whitford, and his committee consisting of Mr. Taft and Mr. Ensign, are to be congratulated upon accommplishing such a difficult piece of work.

The members and representatives of the Council are as follows:

American Federation of Arts
Mr. Huger Elliott, New York City
Miss Florence N. Levy, New York City
Mr. Leon L. Winslow, Baltimore, Secretary

American Institute of Architects
Mr. George C. Nimmons, Chicago
Prof. Holmes Smith, St. Louis, Vice-President
Mr. Thomas Tallmadge, Chicago

Association of Art Museum Directors
Mr. Clyde Burrough, Detroit
Miss Gertrude Hardle, Rochester
Mr. J. Arthur MacLean, Indianapolis

College Art Association
Mr. Herbert Richard Cross, New York City
Prof. John Pickard, Columbia, Missouri
Prof. David M. Robinson, Baltimore

Eastern Arts Association
Mr. James C. Boudreau, Pittsburgh, Treasurer
Miss Helen E. Cleaves, Boston
Mr. Royal B. Farnum, Boston, President

Pacific Arts Association
Prof. Arthur B. Clark, Stanford University
Mrs. Louise Pickney Sooy, Los Angeles
Mrs. Clara R. S. Waters, Santa Rosa

Western Arts Association
Miss Bess Eleanor Foster, Minneapolis
Miss Mary C. Scovel, Chicago
Prof. William Whitford, Chicago

Cooperating Members
George J. Cox, New York
Raymond P. Ensign, Chicago
Henry W. Kent, New York
C. Valentine Kirby, Harrisburg
Walter Sargent, Chicago
Lorado Taft, Chicago

Mr. Farnum was re-elected this year by a unanimous vote. The members felt he has shown such a broad vision of the field in Art Education that his leadership will be most valuable.

This report is given to you to let you understand
That your instructions are being followed by the representatives of your Association,
That the Federated Council is a *working* body—investigating up-to-date problems in Art Education,
That it is a clearing house for all matters pertaining to Art Education which may arise from time to time.

In closing, it has so often been said that artists cannot work well together. Perhaps it is true of artists, but surely not of art educators. This group of men and women who represent these various Art Associations on the Federated Council comprise a delightful group. They are people of vision, broad minded in their work with others on the Council, unselfish in giving time and effort, and very serious concerning professional responsibilities and problems.

If the Council can be continued by further financing you may be assured that your most vital problems will be solved for you by these members of the Federated Council on Art Education.

Respectfully submitted,

MARY C. SCOVEL, Chairman.

An Evaluation of Present Aims and Tendencies in Art Education

C. VALENTINE KIRBY
Director of Art for Pennsylvania

THE demands made upon the Art teacher or supervisor today are greater than ever before. The requirements that met the needs of the "drawing" teacher were simple indeed compared with the Art teacher of today who cooperates in an art service that requires a working knowledge of the technique of merchandising, interior decoration, and civic art, even to the designing of costumes and stage settings for a school or community play. Furthermore, we are confronted with a complexity of ideas, activities, and experiences greater than ever before. These must be evaluated, weighed, or measured. We may, however, with a clear understanding of what we are after, hold fast to those things that are good and, at the same time, maintain a receptive and open-minded attitude towards those things that are new.

The Affirmation of Our Aims and Objectives

We commonly speak of our "aims and objectives," but these must be clearly defined and frequently affirmed both for our own guidance and for the guidance of others. Throughout our whole country there is a striking unanimity of opinion, to the effect that we are endeavoring to provide potential producers and consumers of art. And I think we would agree to subscribe to the "Visual Art" aims as set forth in a Monograph by the Los Angeles city high schools, as follows:

1. A proportioned understanding and appreciation of the world of form and space relation as everywhere manifest in one's visual environment.
2. A proportioned understanding and appreciation of the world of color in one's environment.
3. A mind enriched with the imagery of the great art world.
4. The ability to use the products of the fine arts as sources of needed kinds of aesthetic experiences.
5. Ability as a consumer of economic products to judge, select, and arrange them according to the dictates of the principles of visual art.
6. Ability to apply principles of form and color design in the performance of certain unspecialized practical activities.
7. An amateur and presumably prevocational ability on the part of carefully selected and specially talented pupils to draw, design, model, etc.

Art Education today provides for the enrichment of the life of the child, satisfying his creative instincts and his natural love for beauty.

It is very natural that even though we are in general agreement as to aims and purposes, we should entertain vastly different ways of achieving those purposes because of individual differences, and differences of opportunities and experiences. The essential point is that we should know where we are going, why we are going, and the best ways and means for reaching our destination. The older and, I believe, less desirable practice of selecting from here and there more or less attractive activities provided a course of study, to be sure, but it was of the checker-board or "patch work" quilt pattern rather than the more beautifully designed and woven fabric of today which is interwoven with the social and industrial and even spiritual life of yesterday, today and tomorrow.

The Question of Scientific Investigation in Art Education

I next wish to note the growing interest in Scientific Investigation and the desirability of our being able to demonstrate more accurately and scientifically the real needs we aim to meet, the means by which these needs can best be met and the desired results achieved. At least scales, tests, measurements, and scientific research have been so successful in getting at the facts and reaching conclusions in other subjects that educators and psychologists may, as a consequence, expect the same approach in the field of Art Education.

To be sure the artistic temperament (so called) does not react favorably to such tendencies. Furthermore, certain results in tests and scales today have not been altogether satisfactory or impressive. This is particularly true of those scales and tests in very limited applications in representative drawing. Certain tests, however, in Art Appreciation have aroused greater interest and the findings may bring to our attention certain weaknesses in instruction or supervision. We are interested particularly in those tests that will have to do with talents and special abilities, and vocational opportunities.

Perhaps aesthetic quality and some of those higher values that we seek to translate into finer living and citizenship cannot be measured by any scales that may be devised, and to attempt it would be to "throw a monkey wrench" into our well oiled and operated machinery.

I believe that we are a reasonable, forward looking group, and that we will welcome and cooperate in the making of tests and measurements that may show either strength or weakness in our present methods of art instruction or supervision. We are deeply concerned—or if not, we should be—with such questions and problems as relate themselves to (1) fitness of activities to the grade, age and native ability of the pupil; (2) the actual functioning of the art instruction in school and after life; (3) the discovery of art talent and abilities;

(4) guidance and vocational opportunities; (5) the aesthetic element and appreciation.

My own experiences convince me that advancement in Art Education is seriously affected by the wide variation in content and methods as one art teacher or supervisor succeeds another. This is at least disconcerting to both teachers and administrative officers. Any standardization or discouragement of individual initiative should be deplored, but if scientific investigation will do for Art Education what it has done for the organization of instruction in other subjects, we will no doubt welcome like aids in our own field.

The Progressive Attitude Tempered With a Fine Sense of Values and Balances

The forward-looking and open-minded art teacher or supervisor views with great interest this day of creative youth when leading educators are awakening to the fact that one of the most precious things in the world is the free play of the creative imagination. With this freer attitude towards the "Illustrative" and "Imaginative" drawing of some years ago has come certain "modernist" tendencies and a realization that the unfettered child is a modernist. The art teacher and supervisor must give great consideration to the idea of modernism as a logical expression of our times, for it is already a factor in Public School Art to be weighed, and measured, and generally evaluated. The increasing variety of tools, materials, and processes available today necessitates a fine judgment and distinction between the less and the more valuable activity—between a more or less popular "stunt" and creative work with permanent art value.

Mr. Royal B. Farnum has listed certain essentials in Art Education as follows:

I Art sensitivity—impression and appreciation
II Art action—control of tools of expression
III Art memory and imagination
IV Art intellect
V Art feeling

and calls attention furthermore to the fact that Art Expression requires special and specific talents, involving mental abilities, intellectual capacities, visual accuracy and muscular controls and skills. In other words, the artist must be able to think his problem through, he must be able to conceive and develop his idea; he must be able to see correctly and must be able to execute with his chosen tools.

"If the human individual is endowed with these requirements of art, their exercise becomes essential to his happiness and success. It is therefore an educational necessity that the training of these abilities commence early in life and that there be constant but general guidance."

Hold Fast to Those Things That Are Good

The progressive attitude should be balanced with a just consideration for those things that have stood the test of time and seem to have permanent value. These may be set forth for example as follows:

(1) The need of appropriate and adequate inspirational reference material.

(2) The importance of observational and representative drawing, providing for attentive study, research, and discipline.

(3) Consideration for memory drawing; stored observation as a basis for more productive imagination.

(4) The cultivation of the art spirit in children—love for tools, and the desire to do beautiful and sincere work.

(5) The moulding of character and finer citizenship through an affectionate regard for the beautiful creations of both God and man.

This is the day of creative youth. Children's poems are published in book form and distinguished educators read them before large audiences. It has likewise been discovered that the child is an artist and a "modernist" at that, but we have all been encouraging free self-expression in our "Illustrative" and "Imaginative" drawing for many years. There has been a tendency, however, to control situations and even dictate procedure beyond reason so that the very purpose was defeated. The child seems driven by an inner urge to externalize his inner thought and give graphic expression to all that interests him. The ideal teacher entices him to follow interesting paths; she dose not "clamp down the lid" nor seek to control him. She realizes that one of the most precious things in the world is the free play of the creative imagination. Let us aim to keep our imaginative drawing a continuous series of delightful adventures.

There is a tendency today, at least on the part of some, to depreciate or utterly ignore visual aids and inspirational reference material.

Creative work in a modern school is described as follows:

> "Its distinction lies in its being a pure reflection of the inner life of the child.
>
> "There is no external stimulus, suggestion, or example, no art talks, no art walks, no journeys to Museums.
>
> "No school is more devoid of decoration.
>
> "No Venus—no Apollo—no Winged Victory—no photos of beautiful things or places. An ordinary building with unattractive rooms.
>
> "We recognize art as the revelation of the Spirit projected outwardly—the signature of the child's inner life.
>
> "We are opposed to surrounding child with models of perfection."

In an article entitled "Bad Boys and Good Art," dealing with Art in a House of Refuge, I noted the following:

> "No pictures or objects were at any time shown in the classrooms, except, of course, examples produced by the boys themselves. It has been my endeavor to develop an atmosphere of imaginative freedom, and whatever has resulted in the way of ideas, composition of color is the spontaneous reaction of these boys. Here are good citizens in the making."

Here we have praiseworthy consideration for the free creative impulse without a well balanced consideration for cultural values and for the need of inspiring source material and a beautiful, even spiritual, environment. To be sure the child's mind is filled to overflowing with images, gathered from the illustrations in his books, the movies, his daily experiences, certainly he cannot create something that has not yet existed for him. He must draw on various memories and reassemble them, and in my opinion the finest impressions we can create can never be too good for these young people.

I realize that art must express the age in which it is created and that "from the moment art commences to imitate past ages instead of expressing the thoughts and feelings of living men, from that moment does it become insincere and artificial." Also it has been noted that if copying lead anywhere, the copyists we see in European galleries would be great artists.

On the other hand, the creative work of artists in all fields, ages, and climes can be traced to early sources of inspiration. Apparently, it is the abuse and not the proper use of inspirational material that invites unfavorable comment and needs our most thoughtful consideration. In this connection I would urge that more attention be paid to memory drawing as an essential, for the memory processes are eternal The cultivation of the memory should grow through systematic training, intelligent looking, stored observation. From Lecog's "Training of the Memory in Art" (MacMillan Company), I quote the following: "Memory and imagination are so clearly linked that imagination can only use what memory has to offer. Imagination is most productive when nourished by a cultivated memory."

This leads us to a consideration of "Appreciation," our chief cultural aim, as an objective that is too frequently limited to a "Picture Study" period or with rather too clear a line of demarcation between the creative and cultural phases of our work. To be sure, as someone has said, "The training of Johnny's soul is much more important than the training of his hand—but how are we to measure his aesthetic development by an appraisal of his progress in drawing?" A child may learn to draw quite acceptably and yet be without judgment in matters of dress and household furnishings—will probably not even con-

sider whether this object which he draws is more or less pleasing than that from which he drew last week. Yet the forming of an opinion as to which is the most pleasing is of far greater value to him than the making of the drawing itself. Unless someone is at hand to suggest difference, he may never grow in taste and discriminating judgment. Entice him on the right road—teacher must know—show good, then better, but not too much better. "The mental process of estimating hues, values, chromas, and areas by established scales must lead the color sense to finer and finer perceptions."

Perhaps we are impatient and unreasonable in our desire to develop the same tastes and aesthetic judgments that we ourselves have acquired through a period of years. It is my belief that the best foundations for fine taste and discrimination are laid through observational and informational drawing and color study, and creative design, and all that leads to intelligent looking and clear perceptions of beauty in nature and art and the fullest development and growth of the color sense. Thus are cultural aims achieved to a large extent through creative work, and foundations are laid and equipment provided for the establishment of sound aesthetic judgment and an affectionate regard for the highest and best.

In too few cases do we have adequate material for stimulating and guiding the creative imagination or an ideal environment for our boys and girls. The school environment should be rich in suggestive material. We must assume a responsibility in this regard and realize to the fullest the effectiveness of "the silent tuition of beauty."

What Art Has Done for the Linoleum Industry

MRS. HAZEL DELL BROWN
Armstrong Cork Company

SHORTLY before graduation at Pratt Institute I overheard one of the girls in the illustration class sigh theatrically, and say, "Well, pretty soon I'll be out in the cold commercial world, and what if I shouldn't be able to "commersh!"

Just six and a half years ago I left Miss Fitch's protecting wing for the cold commercial world, and I am not sure yet that I am able to "commersh." But Oh! how exciting, interesting and variegated the work has been! One of the surprising things to me has been the extent to which all the art training and teaching experience has carried over into the new job. I am still teaching, for after all, what is teaching but selling an idea. It would be nothing short of pathetic were I to stand before such a group of experts and try to talk knowingly about the broad fundamental principles of art. So I have decided the only becoming thing for me to do is to simply tell you a story—the story of Armstrong's Linoleum.

Once upon a time—about 65 years ago—one Frederick Walton after considerable experimenting, invented linoleum. Linoleum is a mixture of ground cork and oxidized linseed oil pressed on to a burlap back. It is said that the idea of using linseed oil came to Walton when he noticed the thin film formed over a can of paint, which he removed and found was exceedingly tough, as well as elastic.

So far as the Armstrong Cork Company is concerned, there is a little bit of romance in the fact that in 1863 Frederick Walton invented linoleum, for just about this time Thomas A. Armstrong, the father of the present president of the Armstrong Cork Company, started in the business making cork bottle stoppers in Pittsburgh. At that time the corks were cut by hand from pieces of cork bark and peddled in wheelbarrows. Bearing in mind the fact that linoleum is made out of ground cork and that there is considerable waste left after corks are cut from cork bark, you can see how the invention of linoleum fitted right into an economic situation created by this little cork business in Pittsburg. Pretty soon Mr. Armstrong was faced with the problem of disposing of, or utilizing quantities of waste cork for, being an enterprising young man, his business grew quite rapidly. This cork was used in a number of ways—one of which is the manufacture of linoleum. Only a few years ago the linoleum business was the tail of the dog, now the tail is wagging the dog.

In 1863, when linoleum was invented in Europe, there was a real

economic reason for finding a good floor material. You will remember from your geography lessons of the scarcity of wood in the European countries, and the great care taken to conserve the supply of lumber. Linoleum was invented as a substiute for wood floors. When our own country was in its infancy there was a plentiful supply of wood—in fact, too much, and there was no real need for anything to take the place of wood. That condition, however, with our rapid growth in population has changed very considerably, and we are rapidly coming to the place where we must conserve our raw materials, especially wood.

Examples: Copper and asbestos shingles.
Steel and concrete houses, etc.

It is calculated that each of us consumes seven times as much of the world's raw materials as did the Englishman of Queen Elizabeth's time. One Sunday edition of the Chicago Tribune strips bare 20 acres of virgin spruce forest—a horrid thought. Within a century the world's population will double. Who dare prophesy what further drafts we shall be making upon the earth's limited stock of raw materials a hundred years hence. Plainly, we cannot afford to ignore chemical substitutes.

Throughout long centuries man has been discovering curious ways of making chemicals work for him. Ages ago some cave man genius discovered, quite by accident, that the greasy hide of a tiger could be more quickly and easily cleaned by rubbing it in wood ashes—the beginning of alkali cleansers.

Substitute—especially chemical substitute—has some nasty connations. Yet no such stigma attaches itself to glass, although glass is a chemical product which long ago replaced the brass bowl of the East or the thin-scraped parchment for window pane. Glass, a synthetic product, has become invaluable to mankind.

Linoleum—is in this same category—a valuable, chemical substitute.

So long as it does not pretend to be something richer or rarer than it is—and makes no attempt to trick us—it is honest merchandise.

These chemical substitutes cannot compete with luxuries, since their very economic purpose is to become cheap and plentiful. Glass mounted as a diamond—or paper in the sole of a shoe—deserves contemptuous exposure.

There has been a misuse of chemical substitutes. But properly used to conserve our dwindling stocks of natural goods—these chemical products are and increasingly will be one of the best material blessings of our chemical age of industry.

When the Armstrong Cork Company started making linoleum about twenty years ago, there were other linoleum manufacturers turning out miles of perfectly good linoleum, most of which, how-

ever, was designed especially for use in kitchens, and we were faced with the problem of trying to secure some of the existing market or of creating a new one, and now as we look back we feel it was rare foresight that caused the directors of the Armstrong Cork Company to decide on the latter course.

In the very beginning, when we started to advertise our product, we used the slogan—"Armstrong's Linoleum for Every Room in the House." That meant that we must do two things—first, create the type of designs that would be acceptable for the best rooms in the houses of good taste, and find ways and means of installing the linoleum that there would be no unsightly tacked, bradded or brass-bound seams. You may not be particularly interested in knowing about the proper method of installing linoleum, but if you are going to think of linoleum in terms of modern decorative material, you must realize that it can be installed to present a sightly appearance. (Felt is first pasted to the floor boards with a water-soluble paste, the linoleum in turn pasted to the felt, and then the seams and edges tightly sealed with waterproof cement. When laid in this way the floor has a smooth, practically one-piece appearance).

And so for fifteen years we have been endeavoring to create designs and colorings in linoleum which we could honestly recommend for the "best rooms," and now we are spending $2,000,000 annually to sell the idea of linoleum for every floor in the house.

Chart of Floors—advertisements.

Demonstration.

Show lithograph color schemes—explain service.

No doubt most of you have read the article in the August number of the Atlantic Monthly by Ernest Elmo Calkins, "Beauty, the New Business Tool." If not, I suggest you read it. Mr. Calkins, sometimes called the dean of advertising, in his inimitable style, tells about the manufacturer's change of heart in the last decade.

Certainly now there is a subtle selling force in beauty. Beauty pays. Beauty sells goods. This Manufacturing Age, which began by disdaining Art and magnifying the purely utilitarian, has made an astounding discovery. It has learned that man does not live by bread alone; he wants his loaves moulded to forms of appetizing Beauty; he wants Beauty in his environment—in his dwelling, in his furniture, in the clothing he wears, in the car he drives, in the very furnace that down in his basement keeps him comfortable in cold weather. He demands that his aesthetic sensibilities shall be gratified before his body is comforted. He has a soul as well as a stomach.

And woe to the manufacturer who refuses to profit by this new gospel of Beauty; for his refusal handicaps the sale of his products, and his loss shall be upon his own head. The buying public is crying for Beauty, Beauty, Beauty . . . . Beauty of products, Beauty of wrapper. Beauty of label, Beauty of trademark, Beauty even in the

very paper and string with which its purchases are tied up for delivery.

And it is not enough that Beauty shall be coldly served—she must be treated sympathetically; her designs and colors must be harmoniously suggestive of the goods she embellishes, and of their uses.

Another important discovery is gratifying the manufacturers who formerly feared lest beautifying their products and packages must add prohibitively to production costs: Beauty is not costly. An exquisite piece of linoleum costs no more than an ugly or indifferent one—frequently even less—always less if the increased sales due to Beauty are counted in. For once a beautiful design and perfect color-balance are established, the same linoleum machine will turn out as many masterpieces in a day as it formerly turned out mediocrities.

And so Art serves the linoleum industry in the making of the product, visualizing the product in use and translating this into convincing advertising.

ciples that will be needed in future lessons. It has rarely been the case that I've had to give a lesson with no present correlation. In most every case a substitute has had charge of the room.

Our picture study uses those pictures which correlate with their other lessons. We get our material from two different angles. We either study the picture which correlates, such as, in the study of "Wool," our fourth Grade uses "Sheep in Autumn," or "Sheepfold," etc.

Or—In the sixth grade, where different countries are studied, the artists of each country are taken up—generalizing on the important pictures of each artist and studying the greatest picture of each in detail.

My Problems

1. To create a Course of Study that will be a real aid in teaching Art, by this method. If we can have the principles of Art clearly and definitely outlined and illustrated so that the teacher can quickly make use of it, it would be a great time saver for both of us. I do not believe in keeping the grade teacher in ignorance of Art principles and methods. The more the teacher knows the more efficiently we can both work for the best interests of the child. I say this because I know that some Art teachers feel that it keeps them more superior personages if they can come into the room and teach some mystifying subject matter of which the room teacher is ignorant.

Capyahoga county is now hard at work on this problem. At the end of each unit in any of the subjects in the curriculum will be suggestions of things to do in Art. Then in the Art Course of Study the principles of Art will be explained and habits, ideals and attitudes to be derived and methods of teachers' and children's procedure with illustrations of work. For example—the Course of Study in Geography might have as a unit "From what sources do we get our clothing?" From the list of suggestions for clarifying this unit the teacher might choose the booklet which includes mounted examples and specimens and descriptions on each source. The class discovers they wish to know how to make their booklet in the neatest way. They ask me to show them. I teach the principles of mounting for balance and harmony. I use one of Miss Welling's job sheets to illustrate while discussing the problem. Then the children arrange their own. The class has a short period to criticise each other, which gives them a chance for variety in judging and choosing. Then they paste. Then the question arises: "How can we beautify the exterior of the booklet?" "Fitness to Purpose" is emphasized and the types of designs are consulted and one chosen. For that reason I can't see why one must teach one type of design in one grade and another type in another. If a child feels a need for one type—why restrict him as some do—keeping a circular type of geometric design in one grade and

triangular in another, etc. I prefer to stick to *principles* rather than to *problems*.

2. Time is another problem.
   a. Time to find a variety of suggestions of methods for working out each type of project.
   b. Time to find reference material for the children's use. I have great faith in lots of stimulation. Too little reference material encourages copying.
   c. Time to read the subject matter of each unit being taught in order to allow no information to be miscontrued. It seems that one who has taught in every grade has the best background here. After I know the subject matter I must go through the process of doing in order to test the principles in application to the project.
   d. Time to investigate other systems for inspiration is another great need. I feel rejuvenated for some time to come after a visiting day. But one day a year is not enough.

3. A third problem is access to an abundance of usable reference material.

4. To keep my head above water long enough to suggest original or different methods of working out the same problem. The teachers take a great pride in the work of their children and are always anxious to do things differently from the rest.

5. Next we need Art Principles stated and illustrated in a simple way large enough for the room to see and discuss. These, of course, should be absolutely perfect in every way. To accompany this we can use traveling exhibits of the children's work for encouragement. If some other child has done the same type of thing it spurs children on to beat that record. Not only that, but children understand children's work better than they can an adult's.

6. Last, but not least—a great problem is to have tact and a chance to apply Art Principles in all surroundings. In the schoolroom and surrounding the buildings—the teachers' clothing and in the community itself. If we do not accompany our teaching by practical examples it loses its effect. I can give an instance where a row of plants with pink blossoms had pots and shelf decorated in red crepe. This room needed a lesson with the emphasis laid on "Fitness to Purpose."

Now I hope you won't think this is an easier method, for it is not. Many times I'm asked to do something that inwardly gives me a faint heart, but *then* and *then* only do *I* have need for learning that information or method and so I busy myself to find it out. In putting in this theory, I warn you not to try it until everyone with whom you work thoroughly understands your method. A misunderstanding is likely to result. We test our work in regard to the survival values by

the interest aroused and the thought stimulated, rather than by the finish of the small product. This is the way I have taught Art the past year. I am thoroughly sold to the plan. I may have to make some alterations in the plan for next year, as the number of teachers I will supervise will be doubled, but I intend to see that all Art Work in the grades is a correlation with other school work. Any suggestions you may have to solve some of my problems will be greatly appreciated.

The Importance of Accessories in the Home

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WHAT are accessories? What part do they play in furnishing the home? Is there any danger of having too many in a room? Can we afford any for our home? These and perhaps many other questions enter our minds when we consider such a subject as the importance and use of accessories in the home.

For purpose of discussion of this subject, the best angle of approach is that of discussion of the study and work done by a Related Arts class in a Vocational Home Economics course in high school.

To begin, the girls in the class have not had a great deal of art prior to this time. The first semester therefore is spent in studying the various Art principles and then applying them to problems related to Costume Designing. This second semester the same girls are also in a class in Housefurnishing, so that principles studied in the one class find application in actual construction problems in the other class. In both classes we are much more concerned with the appreciation side of the question than we are with the skill phase, although that too is watched rather closely.

Since this was a new subject in the Home Economics curriculum this year, it has been more or less experimental, not only for the class, but also for the teacher. The girls, before registering, inquired about it and were rather dubious when informed as to the type of work which would be done. The interest of the group who registered for it, however, has been great. Comments heard from girls not in the class, but who frequently come to see what is being done, would tend to indicate that another year there will be a much larger class.

The question of the importance and use of accessories has been studied in Housefurnishing, therefore, in our Related Arts class the problems this semester have included the making of various acces-

sories for the home. The importance and use of them stressed in the one class, we now turn to their construction. Our first problem was the covering of a lamp shade. Although rather simple, still none of the girls had before attempted one. Much more appreciation for the work involved in the making of any cloth shade resulted from the attempt. I do not believe any person could have done a finer piece of work than these girls. The second problem, a piece of lacquer work with some original design used on it, proved an even harder task. For the laquer problem we were able to buy knocked down pieces such as magazine racks, end tables, tilt-tables, waste baskets, etc.

During the Christmas holidays some friends of mine had marbelized some wrapping paper. I decided to try making a pleated lamp shade from some, so, thus began an experimental era. We tried various grades and qualities of paper and paint and after several successful as well as unsuccessful attempts and wasting of much paint, we succeeded in producing rather good results. The problem of pleating was rather easily solved—and the finished product—a popular pleated lamp shade.

Our next problem was the painting of paper doilies as an order for a party. The class thoroughly enjoyed the making of these and became much interested in the great possibilities of their use for carrying out particular color schemes for parties, and entertainments. As a project accompanying the making of the doilies was the making of nut cups, to carry out the same color scheme. Here, as with the doilies, the numerous combinations which presented themselves made a fascinating study.

Our last problem has been most interesting, that of making oil cloth curtains. The idea was so new to them it had to sell itself. After beginning the work on them, they became very enthusiastic. Some comments passed about them were "What are they like?" "I have never heard of them."

We have been most fortunate in that the girls, if they do not care to take some articles for themselves, have been able to find someone who would be willing to have it made for them.

One aim has been to keep the cost of material as low as possible, for it is not the cost of the article that makes it worth while, but a question of whether it will add to the attractiveness of the room in which it is to be used.

As stated at the beginning, I have confidence that the girls in the class have gained not only an appreciation as to the importance of accessories in the home, but also, have developed to some extent the ability to make certain ones which do not entail too great an expense.

Some Recent Changes in the Manual Arts Problem

Outline used by
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(1) Renewed interest in per capita costs of instruction.

a. Enrollment of students in institutions of higher learning increasing at a rate more than six times that of the population; in secondary schools, approximately twelve times as fast.

b. Instruction in certain special subjects in the schools costs approximately twice as much as the average, per capita.

(2) Elimination of the special subjects not seriously contemplated.

(3) Increased class enrollment a possible solution.

Summary of the Consequences

An insistent demand that the size of class be substantially increased in shopwork and drawing, if acceded to, would bring about certain consequences that may not now be fully understood. The policy probably would not prove to be altogether acceptable in its actual working out.

(4) It would be even more difficult than now to find teachers.

(5) Larger classes would call for significant changes in methods of teaching.

(6) Class instruction would necessarily be emphasized at the expense of attention to the needs of the individual student.

(7) There would be an irresistible tendency toward formalization and standardization of the manual arts courses of study.

(8) The present status of the available supply of text and reference material is not such as to insure meeting the situation that would be created by largely increased size of classes.

Significance to the Manual Arts Teacher

(9) We need to study the educational, psychological, industrial, and social implications of our work; organize a program that will meet real needs; and then make ourselves proficient in carrying it out.

(10) The people will pay what is necessary for genuine service to their children, when satisfied with the objectives and the results.

Testing in the Industrial Arts

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THERE are two major objectives in the teaching of any Industrial Arts subject. These objectives are the acquisition of certain fundamental, technical and related information and the development of certain skills to perform fundamental processes. Many schools in the past have conducted courses where the boys just "worked." Little time or thought was given to the organization of the courses offered and little was taught except tool processes.

Granting that the aims and purposes of a course are well stated, the content properly organized for effective teaching, adequate materials provided, and the outcomes in knowledge, skills and attitudes defined, how are teachers and supervisors to determine whether the outcomes have been realized? Is it possible for an administrator to judge the quality of instruction by noting the general appearance of the shop, the condition of the tools, by inspecting the work produced and by making an occasional visit to a class? He cannot tell the achievement of pupils in academic subjects by these methods. Can a teacher accurately determine what the pupil knows and can do without testing him in some manner? It cannot be done in other work.

I believe that all will agree that an appraisal of some kind is necessary both for the teacher and the supervisor. Tests and measurements are made in industry to determine if standards of quality and workmanship are met, in school to ascertain if the goals set up in the course of study are attained. What do teachers and administrative officers want to know concerning the pupil after a course of instruction? Is it desirable to know how far the pupil has gone in the course and the achievement attained at that point, the best teaching methods, the kind and amount of equipment needed for a given subject, which instructors are getting the best teaching results, the progress made from grade to grade, facts upon which to section students, to grade them, and to assign them school marks? Is information needed on how to determine the number of students a teacher can instruct with desirable results, where to offer a given course in the curriculum, the length of period best suited to shop work, or the amount of time which should be allotted to a shop subject?

Gentlemen, if we are concerned with these problems, how are we to solve them? Surely not by talking about them without evidence upon which to draw reasonable conclusions. Objective information on the questions raised above may be secured by testing pupils with properly constructed tests and the intelligent interpretation of the

results obtained. The measurement of any Industrial Arts subject divides itself into two parts. First is the measurement of the pupil's technical and related information covering such content material as may be tested on paper, and second, the measurement of pupil's skill to perform the fundamental operations in the particular subject. A measurement of these two phases of work may be secured by the use of the informal test and the standard test, either written or performance. By an informal test is meant one written by local teachers or others based on the significant material in a local course of study covering the local needs. It is usable for comparison of groups in the local system, but has no norms or other data for drawing further comparisons. In contrast to this is the standardized test which is not designed for a local situation, but is based on an adequate sampling of significant material found in representative school systems.

A test should possess certain qualities in order to be an effective measure.

First, it should be valid, that is, it should measure what it claims to measure. If a knowledge of wood constructions is being tested the boy who knows the most about the construction under consideration should obtain the highest score.

Second, it should be reliable. The test should accurately measure what it measures. For instance, the pupil should get practically the same score on the test on repeated trials. Reliability is influenced by the selection and number of test items and the objectivity of scoring. Only significant items should be included and these in sufficient number to test adequately every phase of the work being tested.

Third, the test should be so written that the student knows clearly what he is to do. If instructions are involved or if the technique is new, "warming up or fore exercises" should be provided. The language used should be clear and understandable to the pupil.

Fourth, the test should yield the same score when scored by different people. For example: If it is desired to know the accurate size of a room you would not guess at its size, but would measure it. Several persons measuring the room would get approximately the same figure. The personal element of course would enter into the computations and yield a certain error. The probable error would be small. However, if five or six men estimate the size of the room, the error would be large.

The traditional essay type examination is a type of informal examination. It is of questionable value, except as a classroom teaching device, due to its unreliability. Starch and Elliott, through studies conducted in 1912, established the fact that grading of essay type examinations is a highly subjective process. One hundred fifteen experienced teachers graded a pupil's paper in geometry and the results showed that the range of marks assigned was from 28 per cent to 92 per cent. A paper in English graded by 142 teachers, yielded a

range of marks of from 50 per cent to 98 per cent. Such disagreements show clearly that neither of the two student's papers could be said to have been measured. The unreliability of the traditional test is due chiefly to two factors, viz.: the subjectivity of scoring and the limited sampling permitted by the 5 or 10 questions examination.

These facts are admitted everywhere and this type of examination has been largely discarded, therefore, in this discussion I shall confine myself to the consideration of the technique developed in the standardized examination which has been carried over into the construction of the informal examination. These techniques have been employed for some time in the academic subjects and are just as usable when applied to the content of Industrial Arts subjects and with modifications make them the guides in the construction of performance tests to measure skills achieved.

Little published material is available in the Industrial Arts field. The Hunter tests are unstandardized formal unit tests; the Partrick tests cover woodwork and general shop. The Newkirk-Stoddard, Home Mechanics' test and the Nash-Van Duzee Industrial Arts Tests Scales A and B, covering related information and skills in woodwork, are the only ones upon which I have been able to secure norms. References will be made to the latter tests and material drawn from articles written by the speaker and his colleague, Harry B. Nash, Director of Educational Measurements and Research of the West Allis Public Schools, for the Industrial Arts Magazine, because I am familiar with this material and it is pertinent to the subject at hand and covers the Industrial Arts content. These procedures are not new and are used in the construction of standardized tests in academic subjects.

The method followed and the procedures used in the construction of the standardized paper test and suggestions for the application of these methods and techniques to local conditions follow.

First, the purposes of the test were defined, in this case to test all the significant technical and related information as taught in the Junior and Senior high school upon which substantial agreement was found.

Second, the significant material was arrived at through the collecting and analyzing of subject matter in courses of study, woodworking texts of wide adoption, national and state surveys, special references and books on trade analysis. The analysis was made under three headings.

I. Skills dealing with the product.
   1. Processes
   2. Types of work done
      (a) Projects
      (b) Jobs
      (c) Constructions

II. Related Information.
    1. Technical
        (a) Mathematics
        (b) Drawing
        (c) Trade judgment
    2. Science
    3. Trade Materials
    4. Safety Measures
    5. Care of Tools and Equipment
    6. Trade Terms

III. Standards of Attainment.
    1. Specific Skills and Standards of Attainment.
    2. Specific Knowledge the Pupil Should Possess.
    3. Specific Attitudes the Pupil Should Attain.

The courses, textbooks, references, etc., were then worked over carefully and, as items in the content were encounterd, they were tabulated under the proper heading. For instance, in checking over a course of study, when mention was made of estimating lumber, that item was entered under the heading of trade mathematics. If mention was made of a tool, it was listed under tools and equipment. If mention was made of a joint, it was listed under constructions. Under materials, woods were studied as to structure, growth, transportation, shrinkage, weight, properties, grain, character, milling, quarter-sawing, seasoning, terms and measurement, grading, classification, and uses of waste. Under abilities in certain school grades were listed such abilities as sharpening a plane blade, squaring stock to 1/16th of an inch, and distinguishing four kinds of woods. These tabulations provided a classification of content covering the woodwork field.

The third step was to learn the common content of woodwork courses. This was accomplished by checking carefully the various courses of study and by making a frequency tabulation on the chart. Where processes were mentioned, such as sawing parallel to the grain, a check was placed against that item on the chart. The check was so made that it showed the grade or grades where this material was taught. Where a mortise-and-tenon joint was mentioned in a course in a certain grade, that item was so checked on the chart. This process of tabulation was continued until further tabulations were merely repetitions and no significant further information was obtained.

The analysis and checking as to frequency being done, we were then in possession of authentic information as to the significant material upon which there is common agreement among representative schools.

The content of the test was thus tentatively selected. Various technics capable of use in objective testing were then carefully

studied, and the ones which were deemed best suited to the material selected were used. A simple classification of objective tests as studied includes:

I. Recall Types
    1. Simple recall questions
    2. Completion exercises
II. Recognition Types
    1. Multiple responses
    2. True false
    3. Matching exercises
    4. Best answer or judgment tests
    5. Identification exercises
    6. Rearrangement tests

These types were studied with a view to employing them in a form suitable to industrial arts content questions. Questions were formulated and very little of the selected material was omitted because it did not admit of being objectively tested. The test was then tried out on boys in the West Allis shops, revised and used in several neighboring schools and on the basis of the several tryouts, refinements were made and the technique was modified where it seemed necessary. Questions which showed no discriminating power were omitted. For the establishment of norms, 5,000 copies of the test were sent out to seventeen co-operating schools. Approximately 3,500 papers were returned, scored and the norms established on these scores. Reference to norms will be made later.

That is, in brief, the plan which was employed and out of which developed Scale A, copies of which you have been supplied with. It will be seen that the test is not based on a local situation, that the standards were not arbitrarily set by the authors and that the test itself has been submitted to the usual scientific procedure employed in the construction of any reliable standard test.

The test which is designed as Scale A, is divided into four parts, as you will notice by referring to the tests.

Part I consists of 60 true-and-false statements and 42 multiple choice statements; it tests the pupil's information relative to the processes and methods used in woodwork; the use, adjustment, and care of basic hand and machine tools; and important safety measures to be employed. It also tests the pupil's knowledge of supplies used in woodwork, their classification, use, and method of purchase; it tests the boy's knowledge of wood constructions and the mathematics involved in estimating lumber bills. The pupil's trade judgment is tested in the selection of materials and the selection and use of tools.

Part II consists of a number of diagrams of joints commonly used in woodwork. The pupil's knowledge of these joints is tested in three ways: first, by the ability to recognize the correct names of joints; second, by the ability to detect incomplete drawings of con-

structions and indicate graphically the completed joints; third, by the ability to detect wrong constructions and to make proper corrections.

Part III consists of an incomplete drawing of a simple wood block and tests the pupil's basic understanding of drawings as to placement of views, methods of representing shapes in shop drawings, and the ability to complete a third view, two others being given. It also tests the boy's ability to interpret a drawing in order to secure the information needed by a woodworker to do a job.

Part IV consists of what is known as a matching test and tests the pupil's knowledge of such procedures as squaring-up stock and finishing work, and also the selection of tools necessary to do various processes. It also tests ability to recognize the various parts of a plane, which are important from the standpoint of care, adjustment, and use.

The test makes use of the best accepted methods and devices so that it is easy to administer. The directions are clear and simple, and are printed on the pupil's blanks so that the examiner needs only to read the initial directions, start the examination, preserve order, and call a time limit at the end of Part I and Part IV. The scoring is objective, simple, and expeditious. Experience shows that the test can be given within a 45-minute class period, thus making it possible to apply it to any class without interfering with the regular program of the average school.

The norms were based on median scores. The problem of computing satisfactory norms is unusually difficult in a subject such as industrial arts. The reasons for this are obvious. No two schools devote the same amount of time to industrial arts work, nor offer the work in the same grades in junior and senior high schools. In the subject of woodwork taking the schools used for the preliminary standardization of this test, there is an apparent wide divergence of time spent on woodwork and also a wide variety of offerings. For example, one school (A) offers 1,700 minutes per semester in 7B, and does not offer woodwork again until 9B, while another school (B) offers 1,300 minutes per semester in each grade of junior high school. However, by the time 9B grade is finished, the pupils in school A, have devoted 2,000 more minutes to woodwork than the pupils in school B. This illustrates a situation familiar to all industrial arts teachers, and doubtless is one reason for the slow appearance of standardized tests in this field.

The usual grade norms in such a situation would be meaningless. It was decided then to compute norms on a time basis. The time devoted to woodwork in each of the schools used was determined for all grades. A subtotal was then made at the end of each grade and this subtotal was the basis for the norms. All grades yielding approximately the same amount of total time spent were used for the various

semester norms. By total time spent is meant the time spent in that particular grade and all preceding grades. For example, eleven schools are included in the sixth semester norms, with a scattering of grades as follows: seven 9B, three 9A, and one 10B. The average total number of minutes devoted by these schools to woodwork was found to be 9,000, the variation in total time being around 1,000 minutes; this, scattered through six semesters, means about a difference of a minute and half a day. This is representative of the situation. Of course, for the lower semesters, the difference in time was much smaller, and in the higher semesters somewhat larger. Such a comparatively small difference in total time spent could hardly be expected to influence the norms, especially when the work covered in this test in no school represents the greater amount of work covered in woodwork courses.

A study of the percentile curve made for the scores according to the semester grouping, will show the overlapping which exists when that is done. The curves showing the percentile ranks according to a like time situation clears up the problem and presents a plan for the establishment of norms in this field.

A modification of the procedure given above may be followed for devising the informal objective examination and in order to make my remarks concrete, I will illustrate from an actual procedure which we developed in our local situation. The same analysis and selection was made but based on the local course of study, local texts, references, charts and other instructional material. The various test techniques were studied to determine those best suited to the material selected for testing. Where but one teacher was teaching a given subject, the analysis, selection of material, arranging it into parts according to the type of question and the writing of directions was done by the same teacher. Where there were several teachers handling the same course, the committee plan was used. Teachers were advised to follow the course of study as laid out, as they went along and to keep a record of their lectures, demonstrations and the points covered in discussions. The various types of questions and their adaptability to certain materials were discussed in a departmental meeting. An agreement was reached on the types of questions to be used. The members of the committee then prepared questions covering the work done and grouped these questions under the various types of tests as agreed upon. The questions were prepared in multiple so that each member had a set of the other member's questions. Through further committee work the questions were sorted out and clearly stated in language the pupil could understand. The directions were written lastly. The test was then approved by the supervisor before being duplicated.

Tests arrived at in this manner covered the local course of study,

use, test construction, technique, which lead to results in which our teachers and the administration place confidence.

Questions may have arisen in your minds relative to the measuring of skills. The discussion so far has dealt with content material and any measurement program which does not measure skills is not valid as it ignores from two-thirds to three-fourths of the work done in shop courses.

Briefly the points to consider in a skills test are:

First, from an analysis of the total offerings in processes, tools and materials used and application of knowledge you wish to test over, select those you consider fundamental.

Second, incorporate these items in a test problem.

Third, for purposes of scoring and diagnosis break the test problem up into units. Define the accuracy you are measuring for and make a scoring scheme based on deviations fixed either by teacher judgment or based on pupil performance.

To illustrate how this was done in Scale B, referred to above, I quote from the Manual:

"1. The value assigned to perfect work in each unit ranged from 10-4. This was determined on the basis of the per cent of pupils who did perfect work. For example: where 5 per cent or less made a perfect score, a value of ten was given; where 6 to 10 per cent made a perfect score, a value of 9 was given, and so forth.

"2. The value assigned to the next-to-perfect work—usually 1/64" accuracy was determined by the difference between the difficulty of perfect work and 1/64" accuracy and also by the distribution of deviations for that particular unit work. For example, in unit No 1, (which was the trueness of a surface) no one did perfect work while 55 per cent worked to 1/64" accuracy. Hence, perfect work obtains 10 points and next-to-perfect work only 4. Again, in unit 10a, 20 per cent did perfect work, and 20 per cent did next-to-perfect work. It is obvious that not only is perfect work much less difficult in unit 10a, (placement of a rounded corner), than in unit 1, but the difference in difficulty between perfect and next-to-perfect work is much smaller. Here perfect work obtains only 7 points, but next-to-perfect obtains 6 points. It was further found in the two units of work in question, that the range of deviations was much smaller in unit 1 than in unit 10a. In the former, 1/64" to 3/64" was the range, in the latter, 0 to 5/64" was the range. The values assigned in both instances show how the fact is taken care of in the scoring scheme.

"It is obvious that apart from the values attached to the perfect work, the per cent of difficulty does not receive exactly the same value in every unit of work. However, the basis is the same throughout and yields a scale of weighted credits which has been found to

provide a reliable measure of the pupil's skill in the unit of work tested."

Full description of the scoring plan and the time credits and penalties are set forth in the manual from which this is quoted.

The reasons for testing indicate what some of the uses might be. A brief summarized statement of these will be given here. All of these uses will be applicable to standard tests. Some of them will not apply to informal new type tests, on the other hand, the informal new type test will be more effective for certain uses in the local situation and of course, not adaptable to other uses. Tests may be used:

1. As a means of comparing the achievement of your school with representative achievement throughout the country.

2. As a mean of comparing classes in your own school with work in the same semester at various years.

3. As a means of taking an inventory of what your pupils know and can do.

4. As a means of keeping a progressive record of the pupil's achievement.

5. For purposes of diagnosing pupil's difficulties.

6. As a partial basis for assigning school marks and also a check on teacher's marks. Teacher judgment is subjective; tests will reveal facts which would otherwise pass unnoticed.

7. As a basis for assigning definite standards of attainment, permitting only those passing a certain standard to pass.

8. In promoting educational research. To aid in the solution of the problems raised at the beginning of the discussion.

I have raised the question *why* test in industrial arts and what to test. I have outlined a plan showing how to test and called attention to some of the more common uses of test results. Testing is not a cure-all for all problems arising in instruction. Nor will it make a good teacher out of a poor one, but it will make a poor one better and thus better teaching results will be obtained. Testing takes time but the dividends are large. Present educational measurements are not perfect but our present systems of measurements of length, volume, and of the measurement of strength of materials were once imperfect and are now in their present state of perfection as a result of development. More work is needed in the field of industrial arts to the end that more perfect measures may be devised so that it will be possible to measure more accurately what has really been accomplished by the pupil. Of what use is it to define aims, make fine courses of study, provide expensive equipment, and teach if we cannot measure our results reliably and find out if our outcomes are realized?

Some New Problems of the Manual Arts Teacher

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POSSIBLY there may be some question whether there are any *new* problems confronting the teacher of Manual Arts. These problems may have been present in much the same form, and vary only in degree of emphasis. Let us briefly recall certain significant events of the past one and a half decades.

(1) In 1917 we became one of the Allies in the World War. Among other problems there arose that of the training of a considerable body of men for technical service. The experiment was conducted on a scale sufficiently extensive to establish certain new conceptions as to purposes, methods and possible results.

(2) In that same year the Smith-Hughes Law was passed. The Federal Board was immediately occupied with the training program of enlisted and drafted men for technical service. The Rehabilitation program followed and not until about 1920 was the way really open for carrying out the original intention of the law.

(3) The 1920 census marks an epoch in American life. For the first time the majority of our people live in cities. We are now, and increasingly will be, city dwellers with restricted areas for boys' and girls' play, with apartment houses and residential hotels instead of homes of the old-fashioned sort.

(4) Economically, we are becoming more sharply divided into classes, those who "have," and those who "haven't." The former may secure anything that money can buy, while the latter frequently lack the time to make things, as well as money to pay for the necessary materials.

(5) There has been educational progress in organization, methods of teaching and measurement of results. These in turn have brought larger opportunity and greater responsibility and have created certain new problems of the teaching of Manual Arts.

Let us consider some of these problems in more detail. A frequent comment in certain circles is that education is costing too much. Boards of Education and Superintendents of Schools are called upon to justify expenditures for various school enterprises. Research agencies have been collecting and analyzing cost data. All laboratory subjects are found to be more expensive than strictly class room subjects. This is due partly to the larger space and equipment required, and partly to smaller classes. The usual practice of sending the boys of an eighth grade room to the Shop while the girls were sent

to the Home Economics, gave these two teachers but half the load of the eighth grade teacher and thus doubled the per-pupil cost. The inevitable solution of the financial problem is a choice between larger classes or little or no Manual Arts. A recent letter from one of our former students asking for assistance in finding a new position, gave as a reason for being out of a position, the information that a bank failure in his city had seriously affected the resources of the Board of Education. They met the emergency by cutting the Manual Arts and similar subjects. Their action was based upon the opinion that the most expensive item would naturally drop out first especially when they were not fully convinced of its value.

The sponsors of Vocational Education of a decade ago saw little value in Manual Arts. Some of the die-hards still ignore that it has any values of a vocational kind. Others, a bit more open-minded, give the subject a place in general education and make it basic for later specialized vocational training. If the latter group is correct, the problem of the Manual Arts teacher is to make sure that his subject functions in a genuine prevocational sense. Equipment must be ample and it must be in good working order. The projects made must be more than mere busy work, and the methods of producing them must not violate sound technical procedures. The coming of Smith-Hughes classes into some communities has merely made the competition a bit more strenuous.

The changes in our educational system are to some degree the attempt to keep the schools in harmony with changing conditions in our social and economic life. The Junior High School comes in response to a demand for some more rational plan of organization than our older plan. So far as Manual Arts teachers are concerned this reorganization brings opportunities not enjoyed on the old 7th and 8th grade basis. More time is available and a greater variety of shop activities is provided. Therein lies a new problem. Some men have been able to teach a class meeting once a week for ninety minutes. These same teachers run out of material on a daily double period basis before the semester is half over.

The old 8-4 plan called for itinerant teachers of grammar grade shop because few buildings required their full time services. The Junior High School has brought the shop out of the basement and has tried to make the shop teacher one of the regular faculty. In some cases this has been successfully done, in others, it has not. The problem for the Manual Arts teacher is to measure up to the standards set for the entire faculty, and to co-operatively assume his share of the burden of keeping the school organization functioning properly. A superintendent recently said that he wished the shop teacher would keep his shoes shined and his general personal appearance like that of the other teachers. We are becoming "grown-up" and need to associate with our more experienced academic friends.

The Junior High School has brought us a greater variety of shops with more time for intensive training in each. The smaller junior high schools, however, cannot afford to offer a variety of shop courses unless the teacher is competent to take charge of a combination of two or more lines of work. No longer may the prospective teacher expect to be prepared for his new position by becoming casually acquainted with woodwork and mechanical drawing.

During recent years a decided tendency to "general," or "survey" courses has become evident in given subject matter fields. Science, mathematics and history are illustrations in the academic subjects which parallel the "general shop" idea of the Manual Arts. There is one basic difference between the academic and the Manual Arts experiments. The students of a given class are kept together as they are taken from one unit of science to the next. In mathematics and history survey courses the same unity of organization is evident, while in the Manual Arts general shop we have the familiar attempts of carrying on several more or less unrelated types of work at the same time. The old-time teacher of Manual Arts struggled with the problem of keeping a class "together." He felt the magnitude of the task of teaching 20 to 24 boys working with the same materials and tools when each had a different project underway. What would he do with a class, larger by 50 per cent, scattered over a half dozen, more or less, entirely different types of tools, materials and processes? I have no personal criticism to offer here of the general shop idea. The point is merely that the teacher capable of managing such a situation must be a much better teacher, organizer and leader than his early predecessors were. Teaching aids and devices must be perfected to enable each boy to teach himself to a larger degree than ever before. The check-up on tool equipment and supplies of present day variations and complexity demands managerial ability unknown in the simple days of "woodwork and mechanical drawing."

The Manual Arts teacher of twenty years ago had few books or drawings to aid him in his work. Today the very abundance of job sheets and books creates problems of selection and proper use. Every novice is fired with the ambition to get his job sheets into print and the tool manufacturers are giving away similar material. Properly used text books are of very positive value in teaching Manual Arts and our young teachers-in-training need to learn how to draw upon the literature of the field. The wrong use of a text may go a long way toward developing wrong attitudes and loss of interest in handicraft. The boy comes with a desire for action. Over-emphasis upon "theory" to the curtailment of "doing" means a loss to the possible growth of a permanent interest in the use of tools.

The economic problem has not been fully solved, and with it comes a second. An increasing number of boys come from homes financially able to buy articles such as are usually produced in our

shops. There is but little need for the boy's contribution and there is less place for poorly designed, and poorly constructed articles. The development of modern finishes with an unlimited variety of color creates opportunities for artistic atrocities when placed in the hands of teachers and students ignorant of the principles of color harmony and design. The boy unable to pay for materials used is handicapped in his training unless ways and means of furnishing material can be found. The cost of lumber furnished by the boy makes shop almost prohibitive for some pupils. The evident problem is for the teacher to be able to lead his classes to the point of appreciation of good design, sound construction and fine finish.

The purpose of this paper has been served if attention has been directed to new opportunities and larger responsibilities for the teacher of Manual Arts. The solution of the problems growing out of changing conditions must rest with the individual teachers and their supervisors. The college or normal school must be aware of present day needs and reshape the training curriculum to more adequately prepare students for the positions awaiting them. We can only succeed to the degree that our young teachers go from the training institution better prepared culturally, technically and professionally. After that, supervisors and principals must continue the process of growth on the job through directed study. There is no solution of our problems by half way measures that may have been adequate in the days "before the war."

To What Extent Should Practical Production Problems be Carried on in Vocational Classes, and Can They Be Carried on Without Exploiting the Boy and Also Being Unfair to the Tradesman

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THE topic as given above is one that was assigned rather than one of my own choosing. There is always the chance of one's misconstruing the original intent of a subject. Just what was in mind in the question "To what *extent* should practical production problems be carried on" I cannot say. I shall discuss it, however, as pertaining to the proportional amount of time to be given to practical work in the different shops and, also, show that the problem is somewhat different for different shops.

I would have felt more at ease with the topic assigned if the word production had been omitted. Whenever production is mentioned all I can think of is quantity and speed, which are very essential, I grant, but not of first consideration for a school shop.

The two appendages to the topic, viz.: "without exploiting the boy" and "being unfair to the tradesmen" caused me some alarm too. I fear I will experience some difficulty in connecting them to the main topic. Since the subject reads: "To what extent should practical production problems be carried on in vocational classes," I am taking for granted that reference is intended for the school shop rather than for cooperative work. Since I have had no experience with any cooperative program, I would, of course, not be qualified to discuss it from that angle. Since school shops are to be the chief concern, I am free to state that exploitation of the boy, and unfairness to the tradesmen, do not so vitally enter the situation.

In the time that is allotted me on this program I shall try to show what part practical problems play in several of the shops that are most commonly found in our schools. I shall refer only to the trade shops where boys spend at least three hours per day in the shop. What I shall say will relate very definitely to how we conduct our shops in South Bend.

Automobile Work

In our automobile work we have two instructors in one large

shop, each with twenty-seven boys. One man conducts the elementary work and the other one the advanced work.

In the elementary work the instructor starts all boys at work on cars and parts that belong to the school. He assigns different jobs to different boys and keeps a record for each boy. As soon as boys have shown themselves capable of doing certain types of jobs well, the instructor assigns them to service jobs. Probably a month is the most time spent on school cars, after which time the majority of beginners go on to practical jobs.

In elementary work the instructor spends about 30 per cent of his time in lecture and demonstration work. As boys advance the time is decreased to about 20 per cent.

Our school service shop has floor space for about twenty-two cars, and during the spring and fall months we have access to an open court where about six more cars can be parked. This gives us plenty of work for the number of boys mentioned above. The cars are brought in by the general public, just as they would be brought into any garage. There is always a waiting list and instructors are able to choose the particular kind of jobs that are needed.

After a car is brought onto the floor the elementary boys look after the light service work and the advanced boys do the heavy repair jobs. Our shop is equipped to do practically any type of work that is usually done in the average garage. We have many special tools for special operations. In every way the work is just as practical as in any garage and as stated above, after the first month nearly all the boys are at work on practical service jobs.

Last year we paid out $1,200 for repair parts. So far this year we have had 126 cars in the shop and have collected $376.28 for labor charges. We make a labor charge of approximately 25 per cent of the flat rate charge. I quote these figures to show that even if we do practical work, the volume of work done in a school shop must necessarily remain small.

During the nine years that I have had occasion to note the work in the school automobile shop, I am happy to state no serious mishap has occurred to any car due to neglect or poor workmanship in making the repairs. Our instructors check the work at every vital point to make certain of proper assembly and of good workmanship.

Our boys are much sought after by the garages about town. Practically every garage in town has one or more of our boys in its employ.

During the past nine years I have never heard a complaint from any tradesman, whatsoever, that because the school shop does practical work it, therefore, takes the work away from him. Garage owners encourage us in our work at every turn because they are glad to get trained help. The per cent of work, however, that the school shop

can do is so small, that any fair minded individual has no difficulty in comprehending that fact.

Machine Shop

In our Washington school machine shop we do practical work from the start. No exercise work is done at all. Our instructor spends practically every Saturday forenoon, as well as one afternoon of every week in industry. We have made arrangements with a half dozen industries, whereby they permitted us at first, and now encourage us, to select from their plant such jobs as are suited to our school needs. Their trucks bring the raw materials, special jigs or fixtures, special tools and cutters, and the blue prints to our school shop and pick them up again when the work is finished.

On the very first day the boy enters this machine shop, he goes onto practical work. He knows that the product goes back into industry to be checked and inspected there before it goes to play the part it was designed to do. This fact, alone, instills within the boy a desire to want to do his work well.

The first job for the drill press may be drilling the holes in a gas burner. A malleable range company furnishes us all the burner castings we can use. The boy learns how to lay out the holes, to center punch, and to drill. He may stay on this job for a week, at least until the instructor feels that he is master of the job and can turn them out with some degree of speed. Other jobs, that require more difficult layouts and the drilling of different kinds of metals are provided. Not one of a kind, only, but a repetition of the same job until he masters it.

The first job on the lathe may be a square head bolt. A trolley is on exhibition showing the part this bolt plays in transporting molten metal in a foundry from the cupola to the molds. The boys understand that this trolley must be well built, so no mishaps will occur in the foundry.

This bolt is made from two-inch square steel. The boy's first operation is to rough it to size. He learns to use his caliper and scale on this job. He turns out one after another of these bolts, until the instructor is satisfied that he understands the process fully.

Since the instructor has access to every type of job, he is able to choose work for beginners, such that the point of accuracy need not be confined to extremely small limits. Careful selection of jobs will keep spoilage at a minimum.

During the first weeks the instructor spends about an hour a day in lectures and demonstration to the entire group. Other demonstrations and cautions are given to smaller groups who may be engaged in similar machines.

Work for the shaper and planer are likewise practical problems. Simple in the beginning, but more complicated as the boys learn the operation of the machines.

No charge is made for the work done in the machine shop. The

school feels repaid since raw materials and many tools are furnished by industry, making it unnecessary for the school to furnish same.

Even if the boy is not working on a project which will become his own, he displays a wholesome interest and at no time has it ever occurred to me that the term "exploitation" could be applied to this type of work, nor have any tradesmen ever complained of the training program of the school.

Printing

In printing we use what is commonly known as exercise work for the first twelve weeks. The insructor spends about 40 per cent of the time in lecture and demonstration during this period. After the boy has finished the exercise work he starts setting up practical jobs.

Every school city requires so many different kinds of printing that it is rather a simple matter to select jobs to fit the boy in all stages of advancement. In our own system we have never had time to do any printing for agencies outside the school.

If any considerable amount of solicitation were engaged in, to secure outside work, I have reasons to believe that the Typothaeta would interpose an objection. I say this, not from experience gained from our own city, for we have never done outside printing, but from opinions formed from situations in other places.

The printing industry of South Bend cooperates 100 per cent with our school shop. We are unable to supply the demand for boys that the trade calls for. The owners of print shops have learned that our boys know printing from the practical side and they are anxious to get them. No criticism is ever heard of the school shop by the trade.

I need not speak for South Bend alone, when I say that practical work is being done for the most part. I believe that, generally speaking, the school print shops the country over, engage more universally in a practical type of work, than can be said for any other school shops.

Electricity

Electricity has just recently been introduced in South Bend schools. From my short experience with electricity I shall venture a statement, to which many of you no doubt will take exception. The statement is this: In electricity so much depends on knowing the theoretical side, that practical work cannot so readily be engaged in. So much time is required to demonstrate and learn the theoretical that not enough time remains for the practical.

If short courses are the rule, such as house wiring, or motor winding, practical work can be supplied. Booths can be provided where jobs, similar to actual jobs, can be undertaken. Motors to be rewound can be supplied. If, however, just one electrical shop can be had for a city the size of South Bend, then, I believe, we must forego the extremely practical.

Electricity is divided into so many branches that it is impossible to teach them all. Our policy has been to emphasize the theory side, by experiments, tests, etc. The actual "doing" in electricity is not nearly so complicated as the "knowing what" to do.

In South Bend we have only a two-year course. To cover the theory for both DC and AC means that little time can be devoted to the practical side. My contention is this: If a boy understands house circuits, the actual boring of holes and stringing of wires or BX is a matter that he can learn on the job in just a few days.

You will say after I have finished reading my paper that I am catering only to college preparatory boys, who hope to make electrical engineering their profession. In answer, I will say, that knowing "how" without knowing "why" makes only "screw-driver" electricians, of which we have too many now.

I do not want to be misunderstood about not using every practical problem that is suitable considering the time available, but as compared to the shops previously discussed. I believe that only about one-fourth of the time can profitably be spent in practical production work.

Since the chief object of the reading of a paper in a meeting of this kind is to provoke discussion, I solicit hearty disagreement on this or any other part of the paper. My object is not alone to "give," I also want to "carry away." I trust you will discuss the subject freely.

ROY R. KINTIGH

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THE question or questions we have this afternoon are: "To What Extent Should Practical Production Problems Be Carried On in Vocational Classes, and Can They Be Carried On Without Exploiting the Boy" and "Being Unfair to Tradesmen."

Before trying to answer any of these questions, I wish to ask: Why is vocational work given in high schools at all if the school heads do not care to see the young men that leave their school be able to go out in the world with some foundation for a trade that they can build up to a permanent bread-winner for life? I mean by this: Why do they teach any vocation if they do not intend to teach it thoroughly?

I say any trade taught in high school should be taught with the object in view that these young men are going to follow the trade signed up for.

I do not believe in teaching trades in high school if the boy is only going into those departments to get his credits or just to stay in school till he is old enough to quit.

I do not believe in allowing a boy to enter the auto department

or any department when he only intends to stay in school one or two semesters, because the first year is the hardest year for the instructor with this boy, and with only one year of work he is only getting an insight of what is to follow.

He leaves the department with only a slight idea of the work or trade and it has a tendency to exploit him to the extent that he imagines he knows more than he does and thinks he can do more than he can do.

I believe any trade that is worth learning at all is worth digging clear to the extreme depth for the start, and then as it is taught step by step, do not be afraid to give the boy plenty to do, from his classroom work clear through the shop.

There must be a place for some kind of production if you expect to keep the boy interested and not break his spirit, but of course we do have to worry about the production until the boy is finishing up his training.

I have noticed when the boy is on a piece of work that is going outside of the shop, he takes more pains and is more careful than he is with his own shop work, because I believe he knows he will be criticized by strangers if the work goes wrong.

I find that this does not only exist among boys in training, but in my past twenty years' experience of being in charge of men and boys, the same thing exists among the men in their factory work.

There are several things to look at when it comes to productions. That is, the city these trades are taught in governs the trades taught.

For instance, if we were to teach lathe work in our school and handle any number of students at all and had to depend on our home manufacturers to take our production we would be lost, as the town is no machine town at all only for wood-working. Unless the school was making something there was a ready market for and selling it through some supply house, the time would come when the boys would loose interest as they loose spirit when they think they are not showing some one outside of the instructor what they can do.

Have you ever noticed how a boy's or girl's eyes will beam with delight when they are being praised by their father or mother on their work just finished?

With the auto department I find the boys never lose interest when the time comes for them to work on outside cars, and when the boy gets to the last semester work, I say, give him all the production work he can do. I believe in giving the boy this work, as I know these trades cannot be taught from books alone. No more than you can expect a boy to be a good athlete with no training but books. He must have both.

And as exploiting the boy, I say lies mostly in our own hands. If we are going to teach these boys in a haphazard way and make them believe they know when they don't, it won't be long till we will have

a selfish one-sided mind, as they will soon feel that they know as much as the instructor. If we teach these boys cooperation with their fellow students along with their trade learning, we will not develop any selfishness.

The schools that are exploiting the young men of today are the schools that teach them to be mechanics in two or two and one-half months, which you see advertised in all magazines. I have found by employing these young men that came from these schools, they imagine they know more than they do and are very selfish and a little overbearing among the boys that were their dear friends before they had taken this course away from home.

I have a young man in mind at the present time who took one of these courses, and after coming back was in my employ for about two years, and at the present time is one of the head mechanics of the State Highway Department. He told me after being in my employ a short while, that the make-believe spirit that was transferred to him while in one of the short-course schools was very hard to break, and that he found that there were too many things that were expected to be crowded into his mind in too short a time.

I will explain some of our system, then you will probably see why I say these things, and why I say it is mostly in our hands if this boy is exploited or not. First, we must have cooperation of the superintendant and principal. If the superintendent does not believe in vocational work and only cares to see his students have the "white collar jobs," as they say, you will be pretty sure not to have the proper equipment. Then again, if the principal makes the vocational department a "dumping grounds" for the whole school and only sends you students that are unable to get their other studies you are sure to have your hands full and have a bunch of bright mechanics. But, I can say right here, my superiors are two of the finest men in that respect that any instructor would want.

Our students are put in the classroom for ten weeks' study, three hours a day. Every unit of the automobile is taken up, and never is a unit left till every boy understands it thoroughly. After the first week exams start, consisting of twenty to forty questions, one or twice a week. All questions missed are taken up in class and explained thoroughly. If we find, as we always do, a few that are not coming along as well as the rest, they are requested to stay after school as a class, and the trouble thrashed out. Then again, if there are a few that still cannot see through and are not mechanically inclined, they are transferred to the principal who places them where best suited.

Before leaving the classroom all boys must have a passing grade and be able to answer examination questions quickly in so many seconds allowed to each question. These are the last two weeks' test before leaving for the shop. While in the classroom they make trips to

factories and foundries. Cast Iron, Steel, pattern work, foundry gear work, are all studies with their book work.

Why do we keep these boys on constant study so long? To drill into their minds the serious side of this vocation as well as the bright side. Do not let them think for one minute a good mechanic is made over night, or our shop work is just play.

When we enter the shop the boys are placed on the work according to their grades. First, the boys are put in pairs, never placing two high strung or nervous boys together.

The E boys gets motors, the G boys transmissions, the F boys rear-axles and steering gears. When I say rear-axles, I mean we have every type made, from the oldest rear-axle with no adjustments, to the present type. Why do we have the old type axles? So the boys can see by actual work why the manufacturer has made these changes. Another thing to keep him from thinking cars were always made like they are at present. We also have all types of transmissions for the same reason.

After the motor boys go through one motor, as we have all types, they also go through the axles and transmissions and as the F and G grades are raised they get motor. If the F boy does not soon step up to a G grade he is given extra work after school, themes to write, or something to raise more interest. Now in all the work in the shop the boys are supposed to do all their work with no assistance from me.

We use no shop sheets to work from, only blue prints on electric wiring. Why don't we use shop sheets? I know it would be lots easier on me, but we do not want to exploit the boy. We want him to get confidence in himself and not in a shop sheet, and by starting him in the classroom right, he needs no shop sheet to work from.

I think the shop sheet is the worst thing we can have in a shop to exploit the boy. He follows the work sheet, and does his work, but take it away and he is lost.

I watch each operation and check up on it. If the boys are lining up crank shafts and three shafts are done at once, or more, they all wait by their work till checked, then they proceed. If I find anything wrong with any of them I take note of it (where they do not see me write it down) and when the motor is finished, ready to run, they are told how many mistakes are on that motor and they are not allowed to start it till they find each mistake and report to me. I have been asked, why we do not allow them to start the motor first? Because we try to keep the shop motors and axles the same as if it were production. Everything must be perfect. A boy or man can get careless in his work soon enough without teaching it to him. We try to have him do this work systematically, instead of automatically.

We have placed a number of boys in permanent positions and summer jobs and up to the present time have had no reports on any boy that showed he was exploited. We also follow up all boys placed

in positions and find out how they are doing. Our boys are not forgotten as soon as the course is over.

Taking up the later question: Being Unfair to the Tradesman.

It can be done, but it takes cooperation on the part of the instructor and his classes.

The last report I had from Purdue was that there are 100,000 new mechanics needed each year and at present there are sixty-five cars to every mechanic. I would like to ask: How many garages would give employment to a young man in their repair shops with no experience? None.

How many will take in a young man and teach him the repair business? None. That has been stopped around eight years. Why? Because it costs between five and six hundred dollars to teach this young man as just a good helper. What is going to happen to our repair business or in other words what really has happend all ready if these young men are not taught by some one? If our state would pass a law at present, which I think will come in all states some time, that each mechanic had to pass an examination technically as well as practically, there would be 50 per cent out of jobs. For many of these young men have left their home town and gone to some other and hired out to some garage man under false statements. The Buick today have their school for their own men, also the Chevrolet.

Can't we give these young men a better understanding, technically, by teaching them from one year and a half to two years than they could with special courses of a few weeks? Then, why should our tradesmen object when we are laying a good foundation for these young men that the garage man does not have to do.

If we expect co-operation from this garage man we must do something for him to win his respect for our students. We have fine cooperation in our town and hold it by selling or giving them prospects for cars. We have sold cars for every garage man in our town and as many as six and seven for some in the last few years.

We have also overhauled cars for some of our garage men which were personal cars to prove to them the worth of these young men that have completed the course.

Again, I say these questions are all burdened on our shoulders. And the more thought we give them the better we will succeed.

You can probably see why I believe in plenty of practical production. If you expect the young man to leave your school and go out in the mechanical field you would want to see what he can do before recommending him. If you are teaching just for the job and not the welfare of your students, I say, quit. Get another job. I don't believe in starting something and then leaving it half finished.

Again, you can probably see why I am not afraid of exploiting the boy if he has the right training. I don't say our system is the only way, but I don't believe any vocation is a success in any school if they

are unable at the end of their year and a half or two years' work to be unable to recommend the larger per cent of these boys.

And as being unfair to your tradesmen, our business would not be unfair to the tradesman if we did not cooperate with them at all.

But by cooperation with them we have a better chance to start our boys out in life quickly, those boys that must go to work right after graduation, or some that must leave school as soon as they are of age. Our tradesmen had to learn their trade some how, and generally the public cars were their school they had to experiment on. I think it better for us to build a little foundation for our boys to start on than to let the public furnish all the experimental material.

I have here a list of the number of boys placed in positions, some full and some part time.

Also, the amount of money taken through the shop, and out of the shop earning money put back in the shop that the State did not have to furnish.

Amount of money taken in through shop since August, 1923, till March, 1928, $6,254.96.

Money returned to shop for tools out of own earnings, $1,524.33.

Boys put to work in wage-earning jobs: In 1924—9, 1925—7, 1926—11, averaging from $18 to $25 per week.

AMMON SWOPE
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I AM inclined to think that this subject is more economic than educational. It is evident from the experience of many vocational departments over the country that practical production problems can be carried on very successfully in the school shop. The problem then reduces itself first of all to the possibility of the exploitation of the junior worker. Secondly, and of equal importance, is the problem of fairness to the worker in industry who ordinarily is a tradesman. Considering the first of these, what does it mean to exploit the individual? Among other things it probably means taking away from him a future opportunity and replacing it with some immediate result that may or may not do injury to him, both physically and mentally. Considering further the second one of these premises, what is fairness to the tradesman? Fairness to the tradesman consists not only in having an opportunity to work and incidentally to offer service, but rather to have an opportunity to make an adequate living for himself and his family. Along with this he needs an opportunity for obtaining some of the satisfactions of life which are worth while in order to live life at its best.

If production problems are to be carried on in the school shop there must be some reason for the training that accrues from this type of work. From the standpoint of the educator he has one single

idea, namely that of making the student a worker who later may perform at his best in industry. Many times in his enthusiasm to develop in this direction he overlooks the economic problem involved. On the other hand, when a boy is trained in industry through some adequate apprenticeship scheme the educational opportunities of the boy are as likely to be overlooked by the employer or the labor organization as the economic interest may be overlooked by the educator. Either one of these conditions is deplorable. It is evident that in order to train a worker who is at once educationally well developed and who has been given his opportunities as a human being and citizen, he must be given this all-round opportunity. The old apprenticeship scheme aimed at this idea. That is to say, that an individual who was indentured as an apprentice, was given the opportunity over a long period of time to receive the training that was necessary in his particular trade, and at the same time become a producer who could partially at least secure an income for his employer. In considering this problem of production in the school shop we are not asking any more of the boy than was asked under the old scheme, and are giving him an opportunity to acquire an education on the level at which he is working and in terms of the work he will later do to earn his livelihood.

It is a fact that is beyond question that in the majority of our trades the old apprenticeship has broken down. Quoting from the Labor Review of May, 1926, under the title "Are Union Rules Responsible for Scarcity of Apprentices," we find rather striking conclusions drawn from a number of studies that have been made over a period of years. For instance, in the year 1924, a study was made of existing programs for the training of journeymen moulders in the iron and steel foundries of Philadelphia. The union rules permitted one apprentice to five journeymen, plus one for the shop. The actual number in training fell far below this ratio. Quoting from the study iself, we find the ratio instead of being one to five, as was provided, the actual ratio on that date was one to thirteen and eight-tenths. To put it differently, instead of a quota of sixty-one floor moulding apprentices, there are now twenty-two, four of whom are definitely in the short course group. In bench moulding a count of *bona fide* trainees only gives a present ratio of one to twenty-five and seven-tenths; instead of thirty-one apprentices, there are six.

Quoting from the same source concerning bricklaying apprentices by the Mason Contractors' Association of the United States and Canada, an accurate survey of fifty-eight cities and towns in 1923 showed that 714 contractors had only 358 apprentices on the wall. Other quotations of this type are given in the United States Labor Review.

If the old scheme has broken down we are justified in asking the question, are the conditions of ideal apprenticeship being fully met?

We have seen that the number of apprentices has been materially reduced. It would be easy to charge this to the labor unions, and that is the cry that we usually hear. However, the article from which I have just quoted, shows that from these studies that have been made, the charge must be laïd at the door of the employers. Quoting again from the same source as above, we find this interesting statement. "As a result of this survey, it was estimated that it would be possible to put 10,000 more apprentices to work without any interference with the Bricklayers' Union." If time permitted in this brief discussion it would be possible to quote many other such conclusions based on accurate studies that have been made in the various trades. Assuming, however, that this one is typical, it is evident that if the old apprenticeship system had any value in it as a training scheme, and it must have had, that we can well afford to duplicate some of the procedures that have been found to be sound. There cannot be any question in the mind of a thoughtful employer or educator who understands the necessity of production in industry as to the value of training a worker specifically not only in the field of his work, but in the means of his work. Production training is evidently an outstanding consideration in this respect. It should not be forgotten also, that there is plainly scientific evidence accumulated during the last two decades to show that it is educationally sound to train a learner specifically in so far as possible in the identical processes that he will need to use.

The attitude of the Union has been favorable in practically every instance to the adequate training of boys during some period of apprenticeship. It is, on the other hand, to be charged to the employer that he finds it more profitable to put a boy on a production job until he has reached a high degree of skill and keep him in that position as a skilled worker rather than give him an opportunity to receive training in the various lines of the trade. Here is the point at which exploitation takes place in industries. It is to overcome just such a situation as this that the educator organizes in his vocational work a production scheme which takes the boy up to the point that he has had the opportunity to feel and to know what real production means. After this the boy has the opportunity because of the interest on the purely human side that the educational system takes in him. In conclusion to this phase of this subject, let me say that the danger of exploitation lies in the field of industry in what is usually thought of as an adequate scheme of apprenticeship. No such condition would exist in a well-regulated educational system carried on by the public schools, even though the worker might be working on jobs that are identical with the jobs in industry.

Let us next consider what I believe is the more serious economical problem and one which underlies the educational considerations that I have just attempted to discuss. Namely, what are the causes of

unemployment? Quoting again from the Labor Review of February, 1928, we find this striking quotation. "We are trailing along the old lines of economic theory in the matter of production when the object sought was the production of more and more, and ever more. I believe that within ten years this theory of the old-time economists will be obsolete. I believe the real object to be sought in the future is the manufacture of just enough to satisfy the national demand and the orders that come to us from other lands, and no more." Continuing the quotation of Secretary of Labor Davis, in the same issue of the Review, he says, "Most important of all will be economy of time, with our work done more easily and quickly, and we shall have a larger remainder of time for use in other and better purposes than the feverish production of goods that we cannot sell. Every ounce of production over our capacity to consume is not only a waste; it does more harm than good, because it disturbs the price and distribution of that which cannot be consumed at a reasonable figure."

Over-production is undoubtedly one of the most serious causes of unemployment. A great many reasons might be enumerated for over-production in the various industries. One of the most likely reasons to be suggested by those who have only partial information and who express their opinion on those issues is that they may observe directly on the over-population of workers in certain types of work, such as the coal industry or the automobile industry. It would be easy to conclude from this partial information that if the raw material is taken from the industry to the school shop, to be returned as a finished product, that this would be one of the serious causes for over-production and would eventually lead to the unemployment of the regular workers in that industry. But this item is scarcely to be considered any more than the proverbial "Drop in the bucket." Let me quote again from the source mentioned above on the increasing productivity of labor in the automobile industry, "that greatly increased output can be secured with a comparatively small increase in the number of workers through careful planning or production control, as it is called, is shown by the following statement: 'We make 1,400 per cent more cars with 10 per cent more men,' " says the vice-president of a large automobile company. This company is now turning out 1,200 cars daily as against 80 cars in 1912, an increase of 1,400 per cent. The reason for this he assigns to such items as production control and its fellow, progressive assembly. The synchronizing of every operation in buying the material to shipping the finished product is the real reason for the effecting of the increased production and attendent economies.

Mr. Gerard Swope, president of the General Electric Company, discussing this problem in the World's Work for March, 1927, has pointed out four major responsibilities of industry. First, industry is primarily organized for service and not for money-making. This atti-

tude is a modern forward-looking attitude rather than the old attitude of complacency of a generation ago. On every hand we find selling price of essential articles as well as the so-called luxuries being reduced and the volume increased. The automotive industry is a good example of this. Second, industry has a direct responsibility to its employees. More fundamental, he says, than long working hours or continued working hours is the opportunity that will insure the working man adequate earning capacity, and also insures him future well being. The third responsibility, he says, of course is to the shareholders. This responsibility centers in the character of the management. More important than the fact that the employee is a share holder is the fact that he has the opportunity of employment with men of high character. The fourth responsibility is that of perpetuating itself as an instrument of production and as a source of livelihood to its employees.

I think it needs no further argument to show that adequate training is not the reason for unemployment, but in the majority of cases unemployment comes as a result of economic conditions which are often beyond the control of worker as an individual or the group to which he may belong. In a more positive way I think we are safe in predicting that the complete and adequate training of a worker is a guarantee not only of his own employment, but is a means of insuring economic stability which will result in an adequate livelihood for all workers. It is a shortsighted policy that would limit training for the purpose of increasing employment, and as was pointed out in an earlier paragraph of this discussion, the lack of training under the modern inadequate apprenticeship system is one reason why we need to build up a sound training program that will insure for those who so desire, an opportunity to be trained specifically for the work which they will later enter.

In conclusion, I am inclined to think from the numerous educational and economic lines of evidence that are available, that it is sound procedure to introduce into the school shop a type of work which will induct the boy into an environment similar to the one he will be entering in a short period of time, giving him all of the advantages and few of the disadvantages of that environment. I believe this is true for, in the first place, it is educationally sound to train in a specific way. Secondly, this training can have practically no effect on the employment of any considerable group of people, but in a more positive way insures for the consumer a higher grade of product than under the old hit and miss method of training. If it were true that partial unemployment should be the result, it would not necessarily be true nor likely that a worker would suffer under an adequate educational economic scheme for the necessities of life. I think we are safe in promoting a line of work in our school shops of this type when it can be definitely shown that neither the boy nor the laborer is being exploited.

The Attitude of the Printing Industry Towards Printing Education

JOHN H. CHAMBERS
Director of Education, International Typographical Union

THE CRAFTSMAN

IT IS always a great relief to a speaker to have his subject assigned to him and especially to be asked to put his remarks in writing. Incidentally, the listeners have some assurance that the speaker will know when to stop and not be like the politician who delivered an oration recently in a neighboring town.

After talking until the hall was nearly empty, he paused to look about the room for a clock. One of the few remaining members of his audience, seeing his action, spoke up: "Say, mister, we ain't got no clock in this room, but over there on the wall is a calendar."

In discussing the subject assigned to me this afternoon I shall confine my remarks very largely to the special phase of printing education, known as apprentice training. My reason for so doing is that other speakers to follow me on the program will cover the subject of adult education thoroughly, but more especially because apprentice education has occupied the major portion of my time and attention during recent years.

It is my conviction that greater changes have occurred in the printing industry during the past decade than during the entire previous century. These changes embrace new and faster machinery, improved methods of production, new accounting and estimating practices, a greatly enhanced appreciation of the importance of the industry itself, and above all a new conception of trade education. In no other way can we account for the rapid strides of printing from sixteenth to fifth place among the leading industries of the Nation in the value of its products during a single census period and sixth place in the number of wage earners employed.

Such revolutionary changes in methods of production and ways of thinking naturally have called for changes of a radical nature in apprentice training. While the industry was undergoing a rejuvenation and reawakening, old methods and old ideas were being discarded for new, and in the melee apprentice education was performing more gymnastics than a circus monkey. Time does not permit, and it is not my intention to rattle the dry bones of the history of the early apprentice education. It is interesting to note, however, that the problem was finally recognized as educational rather than industrial, and that it is now approaching a solution on that basis.

In general, apprentice education has taken four forms: individual

shop instruction, individual shop instruction supplemented by home study, class instruction in the shop and class instruction in the public schools. At present, shop apprenticeship supplemented by a compulsory technical course of home study, seems to offer the most universally successful plan of instruction. In my opinion, however, public schools offer the greatest hope of ultimate success in apprentice training work not only in the printing industry, but in all the countries' major industries.

The public schools are in splendid position to do much in the way of wise selection, careful guidance, and thorough instruction of apprentices seeking entrance into the industry. In this field the schools have an opportunity to serve industry as never before. Once success is achieved in the printing field, as I am confident it will be with intelligent cooperation, the way will be open for similar assistance to other industries.

Now let us turn a moment to consideration of the thoughts and ideals of the average craftsman, because it is his attitude toward printing education that we have set out to determine.

There is a fascination about printing that makes a strong appeal to most young men. They like the reasonable hours, good pay, clean workrooms, steady employment, stimulating work and fresh outlook which mark employment in the modern printing office. The average printing craftsman is an optimist, who thinks well of his industry and who wishes well of those in it, including apprentices.

In return for his devotion and his services the craftsman looks forward to receiving a little more than a living wage—a saving wage, if you please. He feels that he is entitled to an opportunity to develop the cultural side of human existence, to enjoy a fuller meed of those things which go to make life worth living—a little home with flowers and shrubbery, good neighbors, an auto, a radio, some amusements, and perhaps an opportunity now and then to motor over unknown roads for a week-end. He sees his fellow workmen building homes, wearing good clothes, enjoying new furniture, and he feels that he too is entitled to similar aspirations. If education will help him attain these ideals he is for it. Even if it holds out no immediate hope of improving his personal condition, he is willing to encourage it for the general good.

If the craftsman happens to be a union man he will have additional reasons for encouraging trade education. First, because he realizes that collective bargaining for the sale of skilled labor depends for its success in proportion to the average skill and intelligence of himself and fellow craftsmen. In other words the perpetuity and success of his union is dependent upon the combined skill and intelligence of his fellow craftsmen.

Second, his greatest personal assurance of a pension, sick and mortuary benefits, and possibly a home for his declining years depends

upon the intelligence and earning power of the newcomers into his union.

The attitude of the average craftsman toward printing instruction in the public schools is friendly. He is impressed with the sincerity and high purpose of the schools and feels that they will do their part to serve industry, if industry will define its needs clearly. The helpful attitude of the public schools in employing experts from the industry as instructors, the willingness of the schools to ascertain trade needs through joint advisory committees, and the willingness of the schools to regulate the flow of student-apprentices into the industry according to actual trade needs, have done much to remove antagonism to public school printing classes. If the public schools will continue to shape their manual and vocational courses in conformity with the actual needs of industry instead of impractical texts and unsound courses of study, they will command the whole-hearted respect and support of all craftsmen.

The average craftsman does not expect the schools to turn out more than good second-year apprentices. It does expect the boy to be thoroughly grounded in the fundamental skills applicable to this period of apprenticeship, to possess a well-rounded training in trade English, to have some conception of the principles of art as applied to fine printing, and to bring to the industry a wholsome idealism. For thorough training in these fundamentals the printing industry will be extremely grateful, and for such school instruction will gladly grant trade credit toward the term of apprenticeship.

It is difficult for the average craftsman to understand how a school can justify its printing instruction when the boy entering the shop cannot perform the elementary trade processes. His estimate of the school product is based not so much on the great variety of things the young apprentice can do as on how well he can do a few things. He appreciates that there is a place in printing instruction for teaching appreciation of fine printing and the value of such knowledge to those students who go into other lines of work after leaving school and he would not advocate industrial efficiency entirely at the expense of idealism. He appreciates the superior educational value of printing in comparison with other trade subjects usually taught in schools. He realizes the value of a knowledge of printing from the aesthetic standpoint, but for practical purposes he feels that these are secondary to teaching the pupil how to do, and above all, how to think. In other words, the average craftsman does not expect a great range of trade skills, but he does expect something, and that something very definite, practical and in accordance with accepted trade practices.

Fortunately, more and more printing teachers and school officials are coming to agree with this attitude. It has been found by actual experience that it is much easier and much more satisfactory to teach

printing from the trade viewpoint than from any other, and that in so doing, none of the minor objectives suffer. While not every student expects to become a printer, the thought that his training is of such a high standard that he can do so should he so desire seems to touch depths of enthusiasm, perseverance, and respect for the subject that are almost entirely lacking when the subject is taught without reference to its practical application.

Now, gentlemen, I believe that I have sketched the attitude of the average craftsman toward printing education, and more especially toward such education in the public schools. To state his attitude in a nutshell—he is for it. He wants to have a share in its administration and the nearer it is brought to his trade viewpoint the more he will admire it.

In conclusion, permit me to say that education must teach all to see, to think and to do. You people who are educating our coming craftsmen are building the printing industry of the future, and one of the things that you are going to be able to do, thanks to the modern conception of education, is to develop not only thinking and doing human beings, but happy, contented, useful human beings. Then will the printing industry see increasing growth, contentment in labor, enrichment of leisure hours and the life more abundant.

FRED J. HARTMAN
Director of the Department of Education, United Typothetae of America, Chicago

THE EMPLOYER

INDUSTRIAL education involves two factors, organized industry and organized education. An industry that is not organized for educational purposes on at least a national basis cannot hope to give much or get much from the organized system of education. An educational institution that offers industrial courses, beginning with the prevocational classes in the Junior high school, without direct contact with the industry cannot do effective work for industry in the field of vocational education.

Printing is one of the few basic industries that has given serious study to the problem of training its personnel from the apprentice to the executive. As in all other industries the conflict between the man and the machine has been a very real one, but in printing man has not suffered greatly by reason of the introduction of labor-saving or mechanical devices. Instead of unemployment, the machine has brought more employment. Instead of reducing the worker to a mere mechanical cog, the machine has created a demand for better trained craftsmen, for the application of engineering principles in the plant and its equipment, for a higher appreciation of art, and for a thorough knowledge of industrial management. The vexing problem which the machine has brought to printing is, in the language of the employer,

"How can I keep up-to-date with mechanical equipment and still produce printing at a profit?" Personnel, always a question of major importance to the employer, is amply provided for in his program of printing education.

To understand the attitude of the employer towards printing education it is necessary to trace briefly the development of the educational program of the United Typothetae of America, the international association of Master Printers.

SCOPE—What is known as the educational program of the United Typothetae of America had its inception in 1912, with the appointment of a committee on apprenticeship training, later becoming the Committee on Education. The scope of the work embraces training within the industry, in apprenticeship, craftsmanship, and in management. It includes, also, full cooperation with public and private schools in the general field of printing education.

ORGANIZATION—Through the experience of the past fifteen years, a plan of organization for promoting the educational work has been evolved gradually. Beginning with the Committee on Education, a small group of men prominent in business and active in Typothetae work, the personnel has remained much the same, with the addition now and then of men with the educational vision. This committee consists of men with vision—names that are well known in the printing industry.

At the international headquarters, a Department of Education is maintained, with a paid Director of Education in charge. The department is the operating agency, carrying out the policies laid down by the Committee on Education and approved by the officers of the organization. The department moreover, has the backing of a strong advisory board consisting of Dr. F. W. Hamilton, former president of Tufts College, and first U. T. A. Director of Education; T. G. McGrew, former superintendent of the U. T. A. School of Printing; David Gustafson, United Typothetae of America Professor of Printing at the Carnegie Institute of Technology, and John C. Martin, United Typothetae of America Head Instructor in Craftmanship Training at the same institution.

The Typothetae area is divided into twenty Typothetae districts. Each district has a Commissioner of Education, who is responsible for the educational program of the district. Each local Typothetae, of which there are some fifty, has a local committee on education organized to take care of educational work in the local association and to cooperate with the schools of printing in the Typothetae area.

SCHOOLS OF PRINTING—In general, the training part of the program is carried on by schools of printing scattered quite generally over all of North America and by Typothetae classes conducted by the local Typothetaes.

1. *The Official U. T. A. School of Printing:* The Carnegie

Institute of Technology, Pittsburgh, is the official school of printing of the United Typothetae of America. For about twenty years, prior to 1927, the U. T. A. School of Printing was located at Indianapolis, Indiana. The change permits a broader program of training, including the courses in printing craftsmanship formerly given at Indianapolis, and the degree courses in printing at Carnegie. To make the training at Carnegie effective, the U. T. A. has given Carnegie $225,000 as a permanent endowment to establish two chairs of printing. This is the first instance in American education that a trade association has tied up its program of education to a higher school of learning in this definite, permanent manner.

2. *Plant Schools:* In outlining its original program, the Committee on Education started with the idea that the logical place to train apprentices was in the shops of the industry. There was proof enough of the soundness of this policy in the excellent work that has been done and is still being done in the apprentice training department of the Lakeside Press, R. R. Donnelley and Sons, Chicago, which, since 1908, has been the leading plant school in printing in America. Experience has shown, however, that not many printing establishments are in a position to give organized training of this kind to its apprentices. In addition to the Lakeside Press plant school, two other schools of this type have been operating successfully for a number of years in connection with the York Printing Company, York, Pennsylvania, and J. Horace McFarland Printing Company, Harrisburg, Pennsylvania.

3. *Apprenticeship Schools:* With the development of industrial education, continuation schools, and particularly the vocational training fostered by the Federal Board of Vocational Education, it was possible for the industry to work out co-operative arrangements with public and private schools. The Typothetae was not slow in taking advantage of the opportunity. Today, the strongest printing schools in America are Typothetae-backed schools—in most cases, the relationship with the schools is advisory, but in several cases, the local Typothetaes have purchased equipment and even gone so far as to augment the salaries of teachers of printing over and above what the school can pay. It ought to be added that in a number of instances the employers' associations and organized labor co-operate on a joint agreement basis with public school authorities.

4. *Public Schools:* Quite apart from the Typothetae program of education and yet directly due to the stimulus of it, is the growth of printing education in connection with the public schools of America. There are between 2,000 and 2,500 of such schools, ranging from the elementary grades through the four-year high school. Local Typothetaes co-operate with the more important of these. The Department of Education at the international headquarters is in close touch with most of these schools, serving as a clearing house in all

matters pertaining to printing education. Educational literature, teachers' conference, direct personal service in organizing courses, etc., are some of the ways that Typothetae is meeting the challenge presented by this far-reaching development.

5. *Local Typothetae Classes:* Classes for front-office men are conducted by the local Typothetaes in courses in Estimating, Cost-Finding, Accounting, Advertising, and Salesmanship. These courses have been prepared under the supervision of the U. T. A. Committee on Education. Individuals who cannot join one of the Typothetae classes in these subjects may take the courses by correspondence instruction, the grading of papers being taken care of by the headquarters office at Chicago. These courses are being used also in schools of printing, particularly in the evening classes.

EDUCATIONAL PUBLICATIONS

The backbone of the educational program is the rich supply of educational literature which has been prepared and is issued by the U. T. A. Department of Education. This consists largely of lesson material and courses of instruction that are used quite generally in the various types of printing schools. These publications consist of

(1) U. T. A. Typographic Library of 42 volumes on fundamental processes of printing, history of printing, etc.
(2) Standard Textbooks on Printing—Elements of Composition, Imposition, Linotype Mechanism, and Practical Proofreading.
(3) Standard Apprenticeship Lessons for Printers—covering pamphlet lesson material in hand and machine composition, presswork, applied design, etc.
(4) Manuals on Apprenticeship—for the employer and for the school teacher.
(5) Management Courses in Estimating, Cost-Finding, Advertising, Accounting, and Salesmanship.
(6) Educational bulletins, including PRINTING EDUCATION, a magazine of 16 pages issued gratis five times the year to teachers and others interested in printing education (present circulation 2,600), Survey of Printing Instruction, Directory of Printing Teachers and Printing Schools, etc.

With this program in mind may I call attention to three important matters which I am sure reflect the attitude of employers on questions which concern public schools in which printing is taught:

1. The employer, in no sense, desires to *control* printing education as carried on by organized education. His sole purpose is to help by sharing his knowledge and experience so that education might have an adequate industrial background.

2. The employer does not offer the rich supply of text and reference material as educational literature that has been carefully

graded for every type of printing school. Except for trade schools, the Typothetae material is primarily source material. It is up to the teacher to apply this material to meet the particular need of his pupils. We do believe however, that the time is ripe for educators of this association and similar groups to take this material and organize it into graded texts for use as a manual training subject in elementary schools, as a prevocational subject in Junior High Schools, as a cultural study in Senior Academic High Schools, as a vocational subject in Technical High and Trade Schools, as teacher training subject in Normal schools, as engineering and art subjects in colleges and universities. The great need in printing education today is for a nation-wide, uniform curriculum in the various types of schools.

3. The employer does not favor making public schools the exploiting grounds for recruiting workers for the industry. It is not fair to the school or to the boy that the employers association or the labor organization hold out baits such as "bonus money," "time or apprenticeship" and the like to attract boys to the industry. Such procedures are not only unethical but contrary to spirit of democratic education as carried on by public schools. It is up to the printing industry to make the industry attractive by continuing to make good its much heralded slogans:

"The Art preservative of all other arts."

"The Craft that has educated the world."

"The industry that is the force behind all other industries."

"Printing, the Mother of Progress."

It is up to school people to make use of intelligent vocational guidance methods based upon accurate knowledge of the past history and present day development of the printing industry.

THOMAS KNAPP
Supervisor of Instruction, Mergenthaler Linotype Company, Chicago

THE MANUFACTURER

THE subject assigned to me "The Manufacturer" is rather obscure. What do you expect to hear from me that you do not already know about the manufacturer?

The manufacturer is also an employer of machinists and other skilled workmen, not printers, although he produces tools for the use of printers that are in common every day use in the composing and press rooms.

There are two sides to the question.

How much are the manufacturers interested in Vocational Schools and other such institutions? From my experience I will say that they have been very much interested and have endeavored to help many institutions of learning, but their efforts have so often

been misunderstood and gone astray that many of the so-called privileges are being withdrawn.

The typefounders are manufacturers. They maintain, at a great expense, educational departments where instruction on typography and the operation of various tools sold are taught to printers and executives or printing instructors free of expense.

The manufacturer of printing presses in most cases operate schools both night and day for the benefit of employees, foremen and instructors of printing, free of charge. To this extent the manufacturers have and are co-operating with schools of printing all over the country. What returns do the manufacturers get for this expense? It is like "casting your bread upon the waters"—the hope and expectations are that results will return and no doubt do return from a commercial standpoint or this service could not be continued.

My company, The Mergenthaler Linotype Company, has always been very liberal in their dealings with educational institutions and schools of printing. In many instances they have assisted by editing and correcting lessons in connection with the operation of the linotype, such as published by the U. T. A., the I. T. U. and other institutions who deemed it advisable to have their own lessons. In one instance I know over $2,000.00 was spent for drawings and electrotypes, etc., in order that the correct information be set before the students.

The loaning of typesetters, machines, presses and such tools used in schools is a question over which there has been much controversy and it is still unsettled.

If schools pay for their equipment then, of course, they have a perfect right to operate such equipment in any way they see fit. On the other hand if such machines are loaned strictly for educational purposes then the question comes up as to how far the manufacturer should control the use and product of such machines after they are installed. Loaned machines for educational purposes seem to have a varied interpretation. The manufacturer's idea no doubt is that no commercial work should be executed on loaned equipment—then the question comes up what is commercial work? Take one instance of a college or a high school who claim the loaned machines are used for the purpose for which they were intended, what are they doing; setting up practically all the school blanks and printing the department magazines, programmes, et cetera, used by the board of directors or trustees as the case may be. All of this work was produced by a local printer previous to the time the kind-hearted manufacturers installed machines in the schools free of charge or at a very much reduced rate. Is this commercial work? They, the schools, claim it is not for the reason they accept no outside orders—a distinction without a difference, I call it.

On the other hand the manufacturers sell their product to printers who have to keep the machines producing in order to pay and make

investment profitable. They get no reduction because they do work for charitable organizations, they simply have to pay their obligations no matter who they work for and they, the printers, say it is decidedly unfair for the manufacturers to furnish equipment to public institutions practically free of charge, who are at once in competition with the printers who have paid full price for the machinery and everything else they use.

Now the manufacturers are between these two facts—damned if they do and damned if they don't. What is the answer to be? Is it to continue as a go-as-you-please proposition? One printer out West told me that the year before the university installed linotypes and presses their work for the board of governors amounted to about $27,000.00 a year, and it now is about $6,700.00 a year. Is this fair to the printer? Is this fair to the manufacturer? Who is broadminded enough to favor educational institutions with loaned or reduced cost of machinery and mind how these institutions of learning claim that they are using the machines for educational purposes only and producing no commercial work? Who is right and what is the attitude, if any, that the manufacturer should take.

Our company no doubt has been greatly imposed upon regarding loaned machinery, notwithstanding in every instance we have a contract or agreement that expressly states that in consideration of the loan or reduced price the same is to be used for instruction purposes only.

We have, roughly estimated, over $250,000.00 outstanding in loaned machinery and it is a safe bet that possibly over 50 per cent of these linotypes are not being used for the purpose intended.

What is the answer? Should all schools, colleges and universities be put on the same terms as the printer?

What is the manufacturers' duty to these endowed and other public institutions? What obligation should schools and colleges recognize in return for these favors? Printers pay taxes to support many of these public institutions, and the institutions use this money to operate departments in competition with the local men who are thus in the position of donating part of their income to support a competitor so to speak.

Now look on the other side. Printing instructors do not fail to show facts and figures to the board of governors how much per year they are saving schools and such arguments are made the basis of more equipment, at a very much reduced price, if sentiment and political pull will do the trick.

Now I have tried to lay before you both sides of the question—The Manufacturers and the printing departments of institutions of learning.

Is there any middle ground that can be agreed upon or would

the manufacturer be justified in withdrawing all privileges, in the light of the facts as hereby briefly outlined?

I have no answer and I know the manufacturers are open to conviction. If their present attitude is wrong it should be corrected. It is a difficult subject for adjustment. Are the instructors demands on the manufacturer unreasonable? Can anything be done to clear the situation?

This short address does not represent the official views of our company or any other manufacturers' organization, the facts as given as I have found them by personally visiting many of the larger schools. They are my personal views and not propaganda authorized by the "higher ups." It is simply an illustration of the subject "Manufacturer vs. Schools" as it strikes me.

Measuring Our Product

HAROLD J. VAN WESTRIENEN
Director Vocational Education, Hamtramck, Michigan

AS TEACHERS of the Industrial Arts and Vocational Education we have been a vital factor in producing the most important product of our civilization. This product we may call "Personality." We could even be conceited enough to think that all other products were directly affected by our efforts to integrate the skill, attitudes, knowledge, and inspiration developed in the thousands of individuals passing through our schools each year. We can no doubt claim much credit, but the fact remains that many of our country's most outstanding personalities are so called "self-made men." This fact is due proof that successs in life is not determined by the things that we have looked for as a basis for graduating our students—it is something more than developing skill in shop projects and mastering subject matter. How many of us could pass examinations today in the subjects we received credit in during high school?

The surprising thing about our work in shop and drawing is that no one asks us to file a statement at the end of each fiscal year. We are not asked to show a favorable return for expenditures. Our salaries and the cost of running our schools are paid for largely by big industries and business firms. They would dismiss any employee who could not conclusively show what he had produced in sales or actual physical product. The taxpayer in the past has taken a lot for granted. He has apparently been satisfied with a tie rack, center punch, or a few good looking mechanical drawings. He has accepted these as due proof that our work has been efficient.

Not far in the future after glancing through an overly heavy

tax bill, one of these business men will notice the item "School Tax," and do a little reflecting. Later, while scanning the daily newspaper, he will notice the annual statement of his bank and business firm. He will search in vain for a like statement from his local school. He will then look up a friend on the Board of Education and ask a question that will reach the hands of the Superintendent. It will be passed on to the principals, and teachers. The question when it comes to us will read as follows: "The taxes in our school district are high. The per pupil cost of running the industrial work is higher than for any other subject. How can you justify this expenditure?" When this question reaches us will we be able to answer it to the satisfaction of Mr. Taxpayer and our own consciences?

Our efforts in the past have been directed toward developing attractive looking projects, good construction, hand skill, and mastery of subject matter. To accomplish this we have prepared detailed lesson sheets and job specifications to aid our students. Results in physical product have been in direct proportion to our efforts. To all outward appearances our teaching has been successful, but in reality we have sacrificed the boy for the project. We have done his thinking for him. His work instead of being creative has been imitative. Instead of growing in ability to Purpose, Plan, Execute and Judge for himself, we have been doing all this for him. We have deprived him of a rich learning experience.

In measuring this type of product we have done still worse. Most of our testing has been carried on in a very haphazard manner. In many cases the teacher will sit down during the five minutes or hour preceding the examination and write out a set of questions. These questions are at best superficial in nature. No teacher is capable of devising diagnostic questions in so short a time. Questions of this nature can only be answered in long prose form, making it an impossibility on the part of the teacher to give the student a fair mark in relation to other members of the class. These questions vary in relative value from term to term to the extent that no analysis can be made of the growth and progress of the individual child. In a few cases the teachers will throw the answers in the waste basket. Most of them are checked over in a very hurried manner, which would compare very much with the way in which the questions were written.

With the "New Education" designed to develop the boy and not the subject, these items of physical product, subject matter, and superficial examinations will be of little consequence. The important factor will be the boy and the way in which he has grown. It will be the result of our efforts to direct the integration of the various factors that constitute his "personality." Our success will be measured in terms of how well we have taught him to Purpose and Plan for himself. This method is being used successfully in several school systems at the present time. Hamtramck has adapted this philosophy in its new "School Code," and the method is very much in evidence in

the classroom. It will take another year or two however, before all the teachers have mastered the technique in a satisfactory manner.

With the present development of educational measurement, there is no adequate way of testing these newer factors of individual child development. Our future tests must measure growth and place the child in competition with himself. Our success will be based on the amount of this growth, and not in terms of what we can get him to make. The "Curve of Learning," of which I am able to say little, will be our method of correlating results and expenditures. Through this we hope to be able to answer the taxpayer.

Until psychological measuring has been more adequately developed we can however, do much to improve our technique in testing those factors which can at present be evaluated. Some progressive individuals have devised scientific forms of tests for their own use, and eliminated the evils mentioned above. Several scientific tests applying to our work have been published. Only a few of them however, are of a diagnostic nature and suitable for the above purpose. They are largely of the prognostic type designed for the use of counselors and employment managers, and are valuable for that purpose. This makes it necessary that we do more constructive work. We must devise tests that will meet our specific subject needs, and test the factors that should be tested.

In building a Test the following things must be considered:

1. Have a well-defined course of study for the specific course involved.
2. Select from this course specific things upon which the student is to be tested. They must be educational aims that are generally accepted as desirable factors in child development.
3. The style of test or method to be employed is the next step. I have selected fourteen of these styles that are used by the best authorities. They are classified as follows:
   a. "Analogy Test" Method.
   b. "Association Test" Method.
   c. "Comprehension Test" Method.
   d. "Cross-out" or "Classification Test" Method.
   e. "Disarranged Test" Method.
   f. "Indentification Test" Method.
   g. "Information Test" Method.
   h. "Multiple Choice Test" Method.
   i. "Order of Merit Test" Method.
   j. "Performance Test" Method.
   k. "Scale of Values Test" Method.
   l. "Sentence Completion Test" Method.
   m. "Similarities Test" Method.
   n. "True-False Test" Method.

Most of these can be very easily applied to our work. Select the

types that best suit your work. In deciding, consider age of pupil, grade and type of class.

4. The next step is in devising diagnostic questions. Questions should be written, under each type selected, that concern the same educational factors. I will explain the reason for this a little farther along.
5. The nature of these questions, if properly devised, will be as follows:
    a. They will measure actual student knowledge.
    b. They can be answered in a short time.
    c. The entire course content can be covered, where only five or ten items could be touched on under the old method.
    d. They will lend themselves to easy checking.
    e. They lend themselves to standardization.
    f. The individual student's development can be determined.
    g. They will tell in more than a superficial way, what the student has gained in information.

The final problem involved is in their application and use. In general practice, tests have been given at the end of the course or unit of work, the student showing the greatest proficiency receiving the highest mark. We have not considered the fact that these "A" students may have entered our course with an excellent background. During the course they may have progressed and developed but little. The student making the lowest score in many cases has actually learned more than one making the highest score. The high grade is not always a fair measure of our success as teachers.

To correct this the class should be tested at the beginning, and at various times during the course, as well as at the end. Each time a different style of test should be used to avoid any carry-over. Each test, however, should involve the same factors. Only in this way will we be able to measure what has been accomplished, and how much the individual child has grown. Only in this way will we have an adequate basis for improving our teaching. The matter of standardization and norms will follow, but time does not permit a discussion on this phase of educational measurement at this time.

This is a definite approach to what we will be expected to do in the future when the newer education is definitely established in our schools. It may not be an adequate answer to the tax-payer, but it will convince him of our sincerity and efforts to progress.

I have prepared samples of the tests mentioned above for distribution. Under each type are questions applied to the various Manual Arts and Industrial Vocational subjects. The questions vary in difficulty, as I selected them at random with no special reference as to grade or type of class. Some of you are doing work along this line, which will be in advance of the material offered. In this case I trust it will at least be a form of inspiration to do more. In Hamtramck

we have made some progress in the use of this form of test and another year will find the old type completely eliminated.

Following are examples of fourteen types of tests applied to various Manual Arts and Industrial Vocational subjects. I have selected the applications at random, with no special reference to grade or type of class. They are classified as follows:

a. "Analogy Test" Method.
b. "Association Test" Method.
c. "Comprehension Test" Method.
d. "Cross-out" or "Classification Test" Method.
e. "Disarranged Test" Method.
f. "Identification Test" Method.
g. "Information Test" Method.
h. "Multiple Choice Test" Method.
i. "Order of Merit Test" Method.
j. "Performance Test" Method.
k. "Scale of Values Test" Method.
l. "Sentence Completion Test" Method.
m. "Similarities Test" Method.
n. "True-False Test" Method.

Note: As a basis for my selections I have referred to "Terman Group Intelligence Tests," "Otis Group Intelligence Scale," "National Intelligence Test," and to the work by Mark A. May, and Hugh Hartshorne of Syracuse University, in "Character Tests."

A—"Analogly Test" Method.

Underline one of the last four words that will fit with the first three.

Example: "Brace is to Bit as Chuck is to....."
(Chisel—*drill*—hammer—wrench)

1—(Auto Shop)—"Carburetor—Gasoline—Radiator ....."
(alcohol—oil—water—grease)

2—(Carpentry) —"Shingles—Roof—Plaster ....."
(lath—wall—wall paper—lime)

3—(Electricity)—"Ampere—Volt—Water ....."
(gallon—pressure—liquid—pipe)

4—(Machine Shop)—"⅛"—.125"—⅞" ....."
(.8125"—.875"—.625")

5—(Printing)—"Em—quad—inch ....."
(quart—foot—paper—meter)

6—(Woodwork)—"Shellac—Alcohol—Varnish ....."
(turpentine—linseed oil—water—kerosene)

B—"Association Test" Method.

After each Letter there appears a tool, supply, or other item which is associated, or related to one of the numbered items in the second list. Place the corresponding letter in the space pro-

vided after the properly numbered item. This method also lends itself very well to the picture test.

1—(Auto Shop)—(a) Tire Guage, (b) Reamer, (c) Valve, (d) Piston.
(1) Bushing (b) (2) Connecting Rod (d)
(3) Tappet (c) (4) Pump ..... (a)

2—(Drawing)—(a) Object line, (b) Hidden object line, (c) Border line, (d) Dimension line.
(1) Broken (——) (2) Light (——)
(3) Heavy (——) (4) Medium (——)

3—(Electricity)—(a) Brush, (b) Field coil, (c) Volt, (d) Ampere.
(1) Armature (——) (2) Commutator (——)
(3) Current (——) (4) Pressure (——)

4—(Machine Shop)—(a) Cast iron, (b) High speed steel, (c) Nickel chrome steel, (d) Machine steel.
(1) Tough (——) (2) Brittle (——)
(3) Soft (——) (4) Hard (——)

5—(Printing)—(a) Caslon Old Style, (b) Em, (c) Stick, (d) M. F. Book.
(1) Measure (——) (2) Type (——)
(3) Paper (——) (4) Tool (——)

C—"Comprehension Test" Method.

Read each statement carefully. Then read and complete each of the two sentences that follow, by underlining the proper word.

1—(Auto Shop)—Tires are one of the most commonly abused parts of a car. Many drivers do not keep them properly inflated, which results in the casings cracking along the wheel rim. Stone bruises and other injuries also result.
(a) Always keep tires.....
(b) Rim cuts on tires result from.....
Rough roads—tires too soft—tires too old, poor driving.

2—(Woodwork)—To prepare wood for the finish, it is necessary to plane to a smooth surface, scrape, and rub smooth with sandpaper. In sanding, always rub sandpaper with the grain.
(a) In sanding, rub .....
Soft, long, *hard,* dry.
Hard—crossgrain—twice—with grain.
(b) Before sanding, wood must be.....
Soft—smooth—planed—cheap.

D—"Cross-out" or "Classification Test" Method.

Cross out one item which has the least in common with the others.
(1) (Auto Shop)—Tappet, Valve, Feeler Guage, *Piston,* Cam shaft.
(2) (Carpentry)—Sash, Drip cap, Weight, Glass Checkrail.
(3) (Electricity)—Armature, Commutator, Voltmeter, Brush, Field coil.

(4) (Plumbing)—Die, Oil can, Pipe vise, Stillson wrench, Stock.

(5) (Printing)—Gripper, Pins, Platen, Make-ready, Stick.

(6) (Woodwork)—Shellac, Sandpaper, Brush, Gluepot, Varnish.

E—"Disarranged Test" Method.

The words in each sentence are mixed up, but will make a sensible statement if properly arranged. If statement is true, underline the word *true,* if not, underline the word *false.*

1—(Carpentry)—with too-nailed should 8d Studding common be nails True-False

2—(Drawing)—bottom read Vertical should to drawing of dimensions top from.

3—(Machine Shop)—drilled be oil iron with lard Cast should. True-False

4—(Plumbing)—should fall of pipe fifty per have a one inch foot Water. True-False

5—(Sheetmetal)—Separate composed set is pieces A three rivet of True-False

6—(Woodwork)—thinned should turpentine be Shellac with. True-False

F—"Identification Test" Method.

Note: This test cannot be suitably arranged in writing for our work. Pictures or drawing of items to be identified must be properly arranged, and an etching made for use in reproducing. This could be done by means of a blue print, or sketches cut on mimeograph stencil, but this would not be very satisfactory.

The set of tests by William L. Hunter, published by "The Manual Arts Press," contain several good examples of this method.

G—"Information Test" Method.

Underline the word which will make the sentence complete.

1—(Carpentry)—Sheeting should be attached with.....nails. 10d common, 8d finish, 6d common, 8d common.

2—(Drawing)—Parallel dimension lines should be.....apart to preserve the appearance of the drawing. ½"—¼"—1"—¾".

3—(Electricity)—For bell wiring use.....wire. No. 22 Chromel C., No. 22 D.C.C., No. 22 Beldemanel, No. 14 N.E.A. (Black rubber covered)

4—(Plumbing)—When cutting threads always use..... Lard oil, Machine oil, Kerosene, Linseed oil.

5—(Sheetmetal)—Allow.....times the diameter of the wire for a roll wire edge. 1½, 2¾, 2½, 2¼.

6—(Woodwork)—Varnish that is too thick may be thinned with.....

Gasoline, Turpentine, Alcohol, Linseed oil.

H—"Multiple Choice Test" Method.

Select the correct answer and place the corresponding letter in the space provided.

1—(Auto Shop) The principal function of the carburetor is to (a) Force the gasoline into cylinders, (b) Mix the gasoline with air, (c) Strain the gasoline (d) Regulate the amount used..... Ans.....1

2—(Drawing) Dimensions should be given in inches for lengths up to (a) 18", (b) 24", (c) 36", (d) 48" ..... Ans.....2

3—(Electricity) Electrical current for house lighting is (a) 440 volts, (b) 110 volts, (c) 220 volts, (d) 60 volts ..... Ans.....3

4—(Machine Shop) Cast iron should be drilled (a) With lard oil, (b) Dry, (c) With machine oil, (d) With water..... Ans.....4

5—(Printing) The best paper stock for a school paper is (a) Newsprint, (b) Index Bristol, (c) M. F. Book, (d) Bond..... Ans.....5

6—(Sheetmetal) Solder is composed of lead and (a) Zinc, (b) iron, (c) Tin, (d) Copper..... Ans.....6

I—"Order of Merit Test" Method.

Indicate correct order by putting the corresponding letter in space provided. First choice under number (1) and last choice under last numbered choice.

1—(Carpentry) Arrange the following woods in the order of appropriateness for interior finish: (a) White Pine, (b) Oak, (c) Hemlock, (d) Yellow Pine.

(1) b (2) d (3) a (4) c.

2—(Machine Shop)—Arrange the following metals in the order of their toughness: (a) Cast iron, (b) Carbon steel, (c) Wrought iron, (d) Tool steel.

(1) ..... (2) ..... (3) ..... (4) .....

3—(Printing) Arrange the following type faces in order of appropriateness for use on Commencement Programs. (a) Cooper Black, (b) Invitation Text, (c) Century Old Style, (d) Caslon Italic.

4—(Sheetmetal) Arrange the following joints in the order of their fitness for a stove pipe seam: (a) Lap and Rivet, (b) Lock seam, (c) Butt seam, (d) Lap and solder.

(1) ..... (2) ..... (3) ..... (4).....

5—(Woodwork) Arrange the following processes in the order used in squaring a board: (a) Plane to width, (b) Surface

best face, (c) Square best end, (d) Plane to thickness, (e) Square best edge, (f) Saw to length.

(1) ..... (2) ..... (3) .....(4) ..... (5) ..... (6).....

J—"Performance Test" Method.

Note: The performance test is manipulative in nature, no language being necessary for instructions, and cannot be illustrated here. Tests of this type that have been developed are of a prognostic nature to predetermine special aptitudes. Two of them may be briefly described as follows:

1—The "block test" consists of a (3") square block painted red on all sides and then cut into (27) (1") cubes. Some of the cubes will have paint on two sides, some on three, some on one, etc. The problem is to assemble the block in such a manner that all the red appears on the surface. "I have seen a successful high school principal give up after failing in three attempts in ten minutes of time. He evidently had no mechanical ability.

2—The "Stenquist Assembling Test for Mechanical Aptitude" consists of a partitioned box containing ten small articles, such as a patent bottle stopper, spring mouse trap, spring clothes pin, mortise lock, bicycle bell, etc., which have been taken apart; the problem being to assemble each article.

Note: Until tests of this type are perfected for diagnostic purposes, the student's performance can be evaluated by the teacher in regular class work.

K—"Scale of Values Test" Method.

Designate in the space provided at the right of each question whether you consider the item involved (Excellent) (Good) (Fair) (Poor) or (Very Poor) in relation to the need stated. Use the letters (E) (G) (F) (P) (VP).

1—(Auto Shop) How do you rank (*Kerosene*) as a fuel for gas engines..... (.....)

2—(Carpentry) How do you rank (*Spruce*) as to suitability for porch floors..... (.....)

3—(Machine Shop) How do you rank (*Tool Steel XXX*) as to fitness for use in lathe tool bits..... (.....)

4—(Plumbing) How do you rank (*Galvanized Iron Pipe*) as to its suitability for carrying water from street main to house meter..... (.....)

5—(Printing) How do you rank (*Wedding Text*) as to its suitability for a Banquet Program..... (.....)

6—(Woodwork) How do you rank (*"Casco cold water glue*) in relation to Lepage, boiled animal glue, and others as to its permanent holding qualities ..... (.....)

-"Sentence Completion Test" Method.

Supply the missing word that is needed to make the sentence complete and correct.

1—(Carpentry) Add 10 inches to glass size in figuring the rough frame opening for a double hung window.

2—(Drawing) Most working drawings are developed in..... angle projection.

3—(Electrical) The volt is a measure of electrical.....

4—(Plumbing) Wiping solder is composed of .....parts lead and.....part tin.

5—(Printing) Column widths are measured in.....

6—(Sheetmetal) It is necessary to use.....to make solder stick to tin.

M—"Similarities Test" Method.

This is a test to see if you can tell the ways in which certain things are alike. In the first illustration the first three items are all parts of the motor. Now underline the one item in the group below that is also part of the motor.

1—(Auto Shop)—(1) Piston, (2) Valve, (3) Connecting rod. Spring, Ring gear, Brake, *Camshaft*, Horn.

2—(Carpentry)—(1) Jack, (2) Hip, (3) Common. Shingles, Dormer, Valley, Eaves, Ridge.

3—(Machine Shop)—(1) Center, (2) Tail stock, (3) Tool post. File, Vise, Back gear, Chuck, Dividing head.

4—(Plumbing)—(1) Soil pipe, (2) Oakum, (3) Lead. Nipple, Union, Pipe vise, Stub chisel, Trap.

5—(Sheetmetal)—(1) Circular shears, (2) Pail, (3) Wire edge. Riveting hammer, Burring machine, Bar folder, Crimper and Beader, Brake.

6—(Woodwork)—(1) Wax, (2) Stain, (3) Shellac. Turpentine, Glue, Varnish, Sandpaper, Brush.

N—"True False Test" Method.

If statement is true draw a circle around letter (T).
If false draw a circle around the letter (F).

1—(Carpentry) In laying out common rafters always use 12" on the blade of square..... T F

2—(Arch. Drawing) Window dimensions on plan should be based on size of sash..... T F

3—(Machine Shop) Lathe tool bit should be placed just below center for turning..... T F

4—(Plumbing) Wiping solder should be composed of 60 parts tin and 40 parts lead..... T F

5—(Sheetmetal) Allow two times the width of the seam in making a lock seam..... T F

6—(Woodwork) In smoothing wood move sandpaper over the surface with a rotary motion..... T F

"What Effect Has the Advent of Vocational Education Had on the Manual Training Program."

M. M. PROFFITT
Department of Interior, Bureau of Education
Washington, D. C.

MR. CHAIRMAN, Ladies and Gentlemen of the Western Arts Association:

Manual training at one time was thought of quite largely as vocational work. Then the time came when it was considered more of a general education subject with cultural values. About 1917 with the coming of the National Vocational Education Act, manual training became frightened lest it would be driven out of the public schools, especially in the upper grades. From some of the cities in the United States there went up a cry from the manual training departments, what shall we do to be saved? However, this period of doubt and anxiety was quickly dispelled. It was only the ephemeral manifestation of a state of confusion resulting from changing objectives, and the shifting of emphasis in manual industrial types of education. Manual training as represented in the best types of industrial arts courses has saved itself and persisted in our school programs. Unlike the philosophy expressed by Mark Anthony, the good has not been interred with the bones of the terminology used, but has lived after the time that the term "manual training" became very much restricted in its use. The good which was embodied in it has remained to serve even a larger field in public school education. Out of the period of questioning has come clearer distinctions as to aims and values, the organization of subject matter, and the methods of instruction relative to the various types of courses in industrial education. Today there is a growing recognition of the necessity for providing different types of manual-industrial courses to meet the needs of both general and special education objectives. At the present time there is a definite effort being made to organize industrial courses for the purpose of training for the intelligent use and care of industrial products and services on the one hand, and for intelligence and skill in the production of industrial products and services on the other hand, for training in non-specialized types of industrial work to function in connection with the home and avocational activities, and for training in specialized types of industrial work for vocational and employment purposes.

There has been a marked increase in the development of these courses in the past few years. In 1926 the United States Bureau of

Education asked a number of city school superintendents in cities of from 5,000 to 100,000 inhabitants to estimate in per cent the increase or decrease, during the period from 1915 to 1925, in the time allotted to the manual arts. Of the 307 cities reporting, 72 per cent of them increased their time allotment for the manual arts during the ten-year period. Most of those schools reporting no increase were already devoting a fair amount of time to the subjects in 1915. Approximately 25 per cent of the total number of schools reporting, increased by 50 per cent or more the amount of time devoted to the manual arts; approximately 50 per cent of the schools increased their time allotment by more than 10 per cent.

In order to answer the question, "What effect has the advent of vocational education had on the manual training program?", which has been assigned me as a subject for my remarks, it is necessary for us to have a common understanding relative to the definition of the terms and the classification of types of work to be included under each. Let us define vocational education, especially vocational industrial education, as that type of training which is given in some definite trade line for the specific purpose of entering upon employment as an advanced apprentice, or as a type of vocational work for those already employed in a particular trade. Such courses have an immediate vocational objective which is in accordance with the statement made a moment ago that vocational industrial education is for the purpose of training in the production of individual commodities and services.

The types of industrial courses in which the great majority of public school pupils are enrolled are not for vocational employment, but for training in industrial intelligence, in the use and care of industrial products and services, in non-specialized manipulative types of industrial work, and in educational exploration and guidance. I include in these the occupational information courses as they are an important part of the work for training in industrial intelligence and guidance. The last few years has witnessed a remarkable increase in the number of schools offering these courses. A short time ago the United States Bureau of Education collected information which indicates that about two-fifths of the occupational courses offered were inaugurated within the two years previous to the collection of the data. I have already made reference to the increase in the time allotment to the manual arts.

Between the types of vocational industrial courses offered for immediate employment purposes and the general industrial or manual arts types of courses which are for non-vocational purposes, there are types of industrial courses found in the senior high school, especially in the technical and manual training high schools, which have vocational aims and values, but which are mediate rather than immediate for employment purposes. Where the objective of such courses

can be classified as vocational they are mediate and propaedeutic rather than immediate.

Vocational industrial education we accept. It is well defined. We know its value for a large group of boys. The other types of industrial courses are not so clearly defined as to specific objectives. Vocational education has forced attention to this problem for the reason that it has a very definite objective, something that will unquestionably aid in the realization of one of the generally accepted cardinal principles of secondary education. With the organization of vocational industrial courses for the definite purpose of employment in a specific industrial pursuit, the objectives for industrial education courses, using this term in a comprehensive sense, have had to be analyzed more critically. No longer can any one type of industrial course be justified by setting up for it various and widely different objectives, such as general education training, training for employment in the trade, development of industrial intelligence, etc. While any one industrial course may have limited values for several objectives, there must be one permanent controlling objective for the specific realization of which the course is organized. If the course is well organized and taught with this major objective in mind, any other objectives that may be realized from the course will come as accompaniments in the realization of the objective of the course. For this critical attitude as to the values to be derived from industrial types of education we owe much to the advent of vocational education of a specific character.

The coming of specific forms of vocational education courses has emphasized the need for educational and vocational guidance in the schools. I think nothing has stimulated more the exploratory courses in the industrial arts than has the advent of specific trade courses. There is a very definite reason for this, namely, the need for the development of an effective and economical program in vocational education. If we are going to include in our vocational industrial education courses large numbers of people, there will be a great deal of lost energy and wasted effort unless these people are more or less definitely selected. Attention has been forced upon the problem of guidance as a result of our advocacy of vocational training. This means that somewhere in our industrial arts, in our non-vocational courses, there must be provided for all boys exploratory types of experience in manual industrial activities as a factor in guidance.

As a result of the advent of vocational industrial education with its strict adherence to the employment objective, general education is rightly left with the responsibility for the development of those industrial courses which are more general in character and whose ultimate values are not so immediate. They include training in the use and care of industrial products and services in common use, in non-specialized manual-industrial activities which the ordinary in-

dividual performs as a part of his home and avocational work, and in technical and manual subjects which may ultimately have a limited amount of vocational value or which may have some basic value for later training in technical or trade work.

We are thinking today more than we ever thought before of those types of courses which are organized and offered for the purpose of training individuals in the use, care and purchase of industrial products and services. It is becoming quite well recognized that the boy and girl who are going to use the automobile, the electric appliances in the home, the plumbing fixtures, the furniture, the blue prints for home plans, are entitled to some consideration in the development of the school program which will give them training in the purchase and use of these things. Such students have no intention of taking industrial courses for the purpose of becoming producers of industrial products and services. They want only to become intelligent and efficient in the purchase, use and care of the things I have mentioned. The necessity for such formal training is becoming greater each year, as the changes in the modern home and in modern life have limited the possibilities for home training in many activities, and in addition the types of industrial products and services found in the home and made use of in leisure time are becoming greatly multiplied and more complex in their mechanism. There is more technique involved in their use and care and more technical knowledge is necessary for intelligent buying.

The advent of vocational education is causing a re-evaluation of the contribution that some of the courses offered in the technical and manual training high schools can make toward the realization of the aims of the secondary school. The trade-employment objective is provided for by the vocational industrial courses. Therefore, as an immediate and major objective it must be eliminated from consideration in setting up the aims for technical and manual arts courses in the senior high school.

In such high schools is a type of boy who is very definitely inclined toward work in industry, but who does not know what particular trade or occupation he wishes to follow, or if he does know he desires a year or two of technical training before entering upon employment. Later he may find employment in a technical or minor executive position. There is also a type of boy who later expects to take up educational training for some profession, but who desires to have in high school, opportunities for some manipulative work and for the acquisition of technical knowledge involved in industrial production, which will function as general industrial intelligence. The needs of these types of students should be considered in our democratic school system.

Technical and manual arts high schools are offering considerable work of this kind. There is of late, however, a more critical attitude

manifested relative to the aims, values, and organization of these technical and manual arts courses. This is as it should be, and vocational education has been a contributing factor in bringing it about. Judging by the inquiries that have come to the United States Bureau of Education during the past year for information relative to the organization of technical high schools, there is an increased interest in the development of this type of school.

In conclusion, the advent of vocational education has been a factor in bringing about a more scientific and critical attitude relative to the aims and organization of manual arts courses, and has resulted in a quickened appreciation of their value as an essential part of a public school program offering a well-rounded curriculum for all the boys and girls.

Industrial Photography—An Art or Vocation

LEONARD A. WILLIAMS
Director of Industrial Education, State Teachers College
St. Cloud, Minn.

Excerpt from a letter received from Mr. Williams:

***In regard to the copy of the talk I gave at Indianapolis in May at the Western Arts Association meeting, wish to say that I would much rather you would leave it out of the year book report, in fact, please do so. My reason for asking this of you is the belief that very few would get much good from it without the pictures shown and to put these in the year book would cost more than the good it would do. I tried to give to the people there some idea of just how we used photography as a medium of expression. From some of the nice letters I received asking for information, I feel that some good was done or interest started in this kind of work for schools.

This year we plan to use the Cine Film and correlate the art work used in dramatics. We plan also to use some motion picture work in a few of the shop subjects. ***

The Place of Manual Training Now That Vocational Education Is With Us

DR. WM. H. STONE
Director of Industrial Education, Ohio State University

ONE of the easiest things to do in a gathering of Arts educators nowadays is to start an argument over terminology. Since this is generally one of the least profitable things to do, I hope that I shall not provoke it by assuming

1. That Vocational education means specific education, essentially economic in character; legally defined by Smith-Hughes law, and specifically known as Vocational Industrial education.

2. That Manual Training means liberal-social, albeit "practical" education; non-Smith-Hughes, increasingly designated Industrial Arts education.

Please remember that I am not finding fault with terminology used in stating this topic. What I am trying to do is to be clear in my concepts, in order that I may justify things that I shall say. Nor do I want to imply belief that there is any professional magic in names. I have seen, as many of you undoubtedly have also, what appeared to be a very progressive piece of Industrial Arts education carried on under the earlier title of Manual Training; and not infrequently a mediocre performance of the Manual Training of fifty years ago naively labeled Industrial Arts, or even Vocational education. The fact that the John Smith I knew twenty-five years ago is now John Smythe may not mean that he is otherwise a changed man.

Re-stated according to the assumptions noted, the question becomes The Place of Industrial Arts education, now that Vocational Industrial education is with us.

There are undoubtedly various ways in which the answer to this question may be stated. For some years now, the favorite indoor sport of educators in general has been to supply solutions to such problems by listing objectives. There are various listings available for this particular problem. In this instance, I prefer to vary procedure by taking the text literally and offering some thoughts which seem to me particularly pertinent to the "place" of Industrial Arts, without listing objectives in any formal way.

Spatially speaking, Industrial Arts education is tri-dimensional; it has length, breadth and depth. In length, this phase of education is as long as education, itself. Years ago Dr. Butler proclaimed a truth which is all too generally overlooked—that, in effect, the sense

realism of the kindergarten or pre-school period is in character and purpose identical with the sense realism of the elementary and secondary school years. From kindergarten to college the Industrial Arts should be continuous representation in the school of the various industrial pursuits of social-economic life, gradually developed to parallel the gradually unfolding interests and abilities of the learner. In the kindergarten and elementary years, I believe that the Industrial Arts should be provided for all learners, undifferentiated from other types of Arts education—household, agricultural, commercial, physical—the composite Practical Arts, enlightened always by that element of refinement known as "Fine."

In the Junior high school comes differentiation. This is necessary for various purposes, although for some reasons regrettable. Finally, in the Senior high school, Industrial Arts education should be prevocational to those who, for any good reason, have made occupational choice; and for those who have not, this phase of education should still make a strong appeal and be liberally patronized for liberal and avocational purposes.

In passing, it should be noted that Industrial Arts in the Senior high school for prevocational and avocational purposes in no sense trespasses upon the grounds of Vocational Industrial education; it merely means proper occupation of uninhabited and uninhabitable territory. It should be noted, also, if the comparison be not too odious, that like "insanity," "Vocational" industrial education is primarily a legal distinction.

Quite probably you have all heard of the man who laid a wager that he was the only one of a group that could prove that he was not crazy; and won by producing a legally executed discharge from an asylum for the insane. No doubt many an individual is freely walking the streets of this city today who is insane by every known test except the legal one. In the same way, in many of our Senior high schools the work done may be accurately designated only in terms of its legal status—no matter what name for it is employed.

The depth of the Industrial Arts in education may be suggested in terms of what it contributes to the comprehensive education of the individual taking it, vocational-industrial or general-liberal. I can concieve of no person whose efficiency, of whatever character, does not involve fundamentals of facts, skills, and attitudes largely inherent in the Industrial Arts; and I have no doubt that the inception of these patterns of behavior was much earlier and their growth much longer and more gradual than we ordinarily think. Dorsey is undoubtedly stating a profound educational fact in explaining "Why We Behave Like Human Beings," when he declares that we had our first lesson in driving nails when we banged the baby-rattle against our cribs; and likewise that we scored our first victory in equilibrium —the same equilibrium which carries us safely by narrow or tor-

tuous ways over and past multiplied dangers throughout life—when we first navigated the length of a room on unsteady keel to stick a fumbly finger in the cat's eye! It would be a wise educator, indeed, who could definitely fix the beginning of a factual concept, a neuromuscular skill, or a desirable personal-social trait, or enumerate the added increments through which it grows. We are surely not far from sound psychological grounds when we claim for Industrial Arts the same values in adult efficiency as either a consumer or producer of industrial products that nursery rhymes bear to the Song of Hiawatha; that color discrimination and combinations in the kindergarten bear to the later production of a Titian; that the multiplication tables in the elementary grades bear to the technical design of a Brooklyn bridge.

In extending the breadth of Industrial Arts to the whole of education the claim is not made, of course, that all education is of this nature. It does mean to me, however, that any educational content, even farthest removed from industrial in character, may be effectively approached through an Industrial Arts situation for wholly desirable purposes of motivation, activation, and integration. With slightly less justification, of course, the same claim may be made for any other major phase of the Practical Arts; the superiority of the Industrial Arts over others inheres in the fact that American society is dominantly industrial. The Industrial Arts are to education what the clovers are to agriculture.

In summary, now that Vocational Industrial education is with us, the Industrial Arts are finding their rightful place throughout the learning life as an invaluable content of that industrial intelligence which is the sine qua non of every genuine American. At the same time they are proving an incomparable method for the teaching of any desirable-factual or personal-social content. I sincerely believe that no phase of education surpasses the Industrial Arts in either place or importance—nor shall, so long as America continues to be predominantly an industrial democracy.

Manual Training and Vocational Education

H. G. McComb
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ONE might attempt to set up a relationship between manual training and vocational education by stating the objectives of each.

Generally accepted objectives, or goals of Industrial Arts are as follows:

1. Industrial Arts Courses plan to offer experimental and exploratory activities in several fields elemental to industry. The student is encouraged to measure his aptitudes and develop his abilities by producing products of good standards of workmanship. Stimulating situations are set up and underlying principles are emphasized.
2. Industrial Arts offer the necessary related information (science, mathematics, drafting, etc.) so that these activities will have definite occupational and educational guidance values.
3. Industrial Arts plan to develop a greater appreciation of material goods—to make a more intelligent consumer of these goods.
4. Industrial Arts awaken and develop avocational interests.
5. Industrial Arts develop handy-man-about-the-home abilities.

Likewise a generally accepted objective of Vocational Industrial Education is as follows:

To educate the youth to his point of highest efficiency in the occupation of his choice.

The Industrial Arts activities may thus become a selective experience for the youths who later enter the field of vocational education. The experience will be both negative and positive, that is, some students as a result of the industrial arts activities will be guided away from industrial education while others will be guided into the industries.

The relationship might be further illustrated by describing three typical situations involving industrial arts and vocational education in the same center.

1. One man in charge of the whole program. A rotation plan within one shop followed by individual attention and either industrial placement or intensive vocational endeavor.

Thus one teacher through selective activities and guidance enables the junior high school boy to make a vocational choice and get some intensive vocational training in that choice.

2. One or more junior high schools feeding students into a senior high school which is purely vocational.
   The junior high school shops are conducted in a rotation (within the shop) plan, while the senior high schol is operated on a strictly vocational basis with a separate corps of teachers.
3. Vocational shops used one-half day to operate a manual training program on the rotation plan. Classes as a whole rotating within the shop.

The vocational teacher can thus become for one-half day a teacher of a group of boys interested in sheet metal, for example, with the objectives stated for industrial arts definitely in mind.

CONCLUSION. In the middle west practically all of our executives in the field of manual training and industrial vocational education have definite responsibilities for each activity. If the above objectives are kept in mind I see no reason why such dual responsibilities should not react to the advantage of each activity.

The Need for New Ideas in the Industrial Arts

ALFRED G. PELLMAN
Director of Art, Milwaukee Public Schools and Director of Milwaukee Art Institute

CHOOSING an appropriate title for a talk is almost as difficult as organizing the talk itself. When in addition to this the title happens to imply a need for new ideas in the work which you have made a life study of, it almost augments unpopularity at the start.

When I speak of "The Need for New Ideas in the Industrial Arts," I am merely uttering a platitude which has been used many times in the past and which will undoubtedly be used many times in the future. "The Need For New Ideas" is constant in every field of endeavor and will be just as true fifty or one hundred years from now as it is today.

It is somewhat surprising to me that so little attention has been paid by our teachers of the Industrial and Fine Arts to the so-called "Modern Movement," or, as I prefer to designate it, "The Contemporary Movement in the Industrial Arts." We, who on the basis of our specialized training should be the leaders, are very often the most conservative in our viewpoint and leave it to the Department Store, the Newspapers and Magazines, or the Manufacturer to inaugurate innovations. One of the main reasons for this is that many of the Art Teachers know nothing or little about Architecture and the basic structural arts, and too many of our Manual Training Teachers know too little of the few fundamental principles of design. It is due to this fact, primarily, that there has been so much mutual misunderstanding between Manual Training Teachers on the one hand and the Art and Home Economics Teachers on the other.

The Newspapers and the Department Stores, as well as other civic organizations, have been my biggest ally in developing an appreciation of Art in the schools and in furthering progressive ideas in the Industrial Arts.

The Milwaukee Journal, for instance, publishes every Sunday in full color, in their color section, one of the paintings which are being studied in the grades in the public schools.

The Department Stores have been ready at all times to assist me by loaning examples of textiles, or in fact any other merchandise which I care to use.

The Real Estate Board and the Better Home Show work in

conjunction with the Art Department in helping to foster the idea of a "City Beautiful."

I have set myself the rather difficult task to speak to you about and to show you examples of Industrial Art with which you may not be familiar or in sympathy, but which nevertheless represents the work of the present generation.

Some of the slides which I am going to show have been made possible through the courtesy of:

The Ford Motor Company, Detroit.
The Atwater Kent Radio Company, Philadelphia.
The Northwestern Terra Cotto Company, Chicago.
The Schroeder Hotel, Milwaukee.
Holabird & Root, Architects, Chicago.
The Art Center, New York.
The American Art Association, New York.
Secession, Limited, Chicago.
Art et Decoration, Paris.
Three Schuster Stores—Milwaukee.

The Milwaukee Electric Railway and Light Company and various American and European Art Magazines.

Before presuming to talk to a group of specialits in the Industrial Arts, I asked a prominent Director of Industrial Arts in the public schools to give me the main objectives. Accordingly, he listed the following eight:

1. Exploratory—Reveal boy to himself. Find out if he is motor-minded or not.
2. Learn ideals of workmanship and skills.
3. Appreciation of good workmanship.
4. Follow working drawing dimensions.
5. Acquire knowledge of different industries (shop trips).
6. Give boy the opportunity to make choice, or several choices.
7. Express motor activities.
8. Opportunity to apply the fundamental laws of art and color.

1. After discussing these objectives with him and in answer to my question as to what is done if a boy is not motor-minded, I was informed that the percentage of non-motor-minded boys is so small as to be negligible.

2. The ideals of workmanship and skill include the study of processes. This means that in many cases a set task is necessary as a prerequisite which involves a good deal of what might be termed manual discipline.

3. It appears to me that an appreciation of good workmanship, accuracy, etc., is not sufficient, but that it must include an appreciation and a knowledge of good design.

4. In the ability to follow working drawings and dimensions, the material in order to benefit the majority should not be too technical,

such as the drawing of gears, machinery, details and objects which belong in a highly specialized field.

5. Industrial information of all kinds has its educational value, particularly so when it includes up to date methods of production and distribution.

6. It was pointed out that in offering a boy or girl the opportunity to make a choice, or several choices, of a vocation, it is practically as valuable to know or find out what they don't want to be as to determine what they do want to be.

7. The expression and control of motor activities suggests again technique, practice and drill. It involves the right and wrong way of doing things and tries to establish correct standards in the formation of habits.

8. Regarding the opportunity to apply the fundamental laws of art and color it should be clearly recognized that design and construction cannot be separated.

There has been and still is a great deal of misdirected energy, as well as the misuse of material. No matter how much skill is used in making furniture of stag horns, light fixtures of shells, bird cages or houses like medieval castles, breadboards with painted roses, grape vines and griffins substituted as legs of tables and other complicated and involved surface ornamentation, the final result is not logical or fundamentally sound. We continue to commit anachronisms by making Egyptian cabinets for radios, by painting wood to imitate marble, or by twisting it like iron, or tooling it like leather. We continue to put Renaissance furniture in English cottages and even go so far as to appear in a golf suit in a Louis XV drawing room.

The objectives as they have been stated are sound. It is in the application and in the carrying out of these objectives that greater stress should be laid. The training of teachers in a field in which a knowledge of proportion is necessary to the construction of objects, must include a study of the fundamentals of architecture as a background. This statement may antagonize somewhat in the postitiveness of its assertion, yet if we stop to analyze the essential starting point of any structural project with which we deal, we find that proportion and structural unity must first be considered. Although we deal with facts in the manipulation of some of our material, unless there is also some feeling in the final product, it is destined to be born dead at the outset.

An important point which I should like to stress at this time is that a feeling for good design cannot be developed by a set of rules nor through a series of abstract exercises in making color wheels or cuckoo bird designs in cut paper.

There is only one way to acquire a knowledge and appreciation of good craftsmanship and superb design and that is by studying the

world's masterpieces of Industrial Art, both of the past and the present.

Direct contact with fine examples in museums, art galleries, department stores and factories is, of course, the best way. Of the work of the past many wonderful books are available.

It is my intention to devote the time allotted to me to the so-called "Modern" or "Contemporary" movement and to try and point out the fact that this movement is not one which originated overnight, but which is inevitably destined to develop in keeping with the scientific age of the Twentieth Century.

Some of the outstanding factors which characterize the modern movement are first of all: A firm determination to eliminate much of the accumulated rubbage of the past. Mass is given the first consideration and next the surface. The modern designer prefers quiet, plain surfaces and therefore has a tendency to suppress elaborate mouldings and ornate plastic ornament. He strives for simplicity and dignity and studies texture and color as never before. In his endeavor to conform with the present machine age he uses patterns made up of straight lines, or when using curved lines, uses them with restraint and good taste. He does not seek unheard of forms or tries to be original for the sake of being different. The age-old geometric forms of the cube, the cylinder and the pyramid are followed. He works in harmony with the engineer and the scientist and interprets form and color accordingly, and while he respects the fine traditions of the past and uses them as an inspiration for the work of the present, he refuses to persistently continue to imitate the art of by-gone days.

The automobile, the steamship and the aeroplane are the result of intelligent planning. No one insits that the aeroplane or the automobile be in period style or ornamented with medieval mouldings or carvings. Women's dress is probably the most significant expression of modern taste, in that it shows the remarkable evolution during the past thirty years.

Social, physical, legal, economic and aesthetic requirements influence the design of today, as does also the mode of living of peoples, the various traits of individuals and the prevailing climate.

The Industrial Art teachers will accomplish a great deal more if, instead of emphasizing the "S" curve and the scroll in every piece of work which they design (from a simple magazine rack to an Italian Renaissance side table) they substitute instead structurally, sound pieces which depend for their beauty on the relationship of heighth to width, of proportions in openings or drawers, on straightforwardness in construction and in which utility is the prime factor, they will undoubtedly eliminate much which is at the present time neither useful nor beautiful. If errors are going to occur, as they will occur, it is better to make them in the new direction than to continue re-repeating the errors of the past. The teacher of today cannot be a

competent specialist in his field unless at the same time he is aware of the happenings in the world about him. The slides which I am going to show will indicate through the comparative method what is desirable and what is not desirable; what belongs to the past century and what is adequate for the present century. I do not wish to give the impression that all of the new or modern ideas are good and all of the old and tried ideas are not good, or vice vera. There is good and bad both in the past and in the present, but the measure by which we judge the good and the bad is as simple as it is universal. Taste and appreciation cannot be entirely developed through a test book, nor is there a vest pocket guide for the same, but a knowledge of a few of the fundamental principles of design will pave the way for a clearer and better understanding of past and contemporary merit in the Industrial Arts.

In concluding, permit me to quote a paragraph which I recently prepared for one of our big department stores in connection with an exhibition of modern rooms:

The Modern Movement in Home Planning.

To the housewife of today to whom cleanliness is next to Godliness, the modern movement in home planning should be most welcome. It eliminates all useless and unnecessary appendages and gaudy extravagances. It expresses utility, beauty and structural soundness.

Its simplicity is enhanced through the intelligent application of fine proportions, through exquisite finish, and through its absolute accord with Twentieth Century living conditions.

The Modern Movement in home planning endeavors to make rooms restful in appearance, appropriate in function and beautiful in simplicity. It is in conformity with the architecture, mode of dress and manner of living of the present generation. It is not a passing fad. Only the best artists of the present generation and the most capable designers can create it. It is sound in craftsmanship, honest in its use of materials and beautiful in design.

Modernism Warrants Your Consideration.

Art Is Industrial As Well As Fine

LEON L. WINSLOW
Director of Art Education
Baltimore, Maryland

FELLOW ART TEACHERS: I am glad Mr. Pelikan had you all come together, because I believe that there ought to be unity in art, and if we are to symbolize our opinion in this respect and all come together, we shall put up a more artistic appearance. *Art is industrial as well as fine,* and I don't believe that it is necessary for me to emphasize this in a group of manual training and Art teachers. In thinking over what I might say this morning I contemplated addressing a group of men. I thought, now this morning I shall prepare to say something to the men, and this afternoon I shall say something more to the women. But evidently most of the manual training teachers are woman or else the women have come to be much more interested in manual training than they used to be. I am glad to see that there is this unity in art, although it may be a little one-sided this morning.

It is the responsibility of all of us as teachers to teach art. There was a time, I believe not long ago, when most art teaching was left to the teachers of drawing. Now all teachers are, more or less, teachers of art. Mr. Suzzallo says, in the introduction to Mr. Bailey's little book on Art Education, that art is like ethics in this respect—it is best taught not as a subject set apart by itself, but rather in connection with all school studies. That is, art has to do with design, in all the phases of education work. There is design in music, design in literature, design also in arithmetic. Art and the other school subjects are indeed closely allied, and every school subject has its artistic aspects. Art teaching is the task of all teachers, and it is likewise a task of the entire curriculum.

Commercial teachers must teach art. There is art in writing, not only from the standpoint of what one has to say, but also from the standpoint of how he says it visually. The placing of writing upon a sheet of paper is a problem in design. Typewriting is a problem in design. In the first instance we have hand work; in the second, machine work; the result may be raised to the plane of art in either case.

Printing teachers, of course, are art teachers. Art is a large part of the occupation of printing, and some teachers of wood working, and of metal working too, and even machine shop teachers, although it may seem strange to some of you when I say it, are or should be art teachers.

It goes without saying, I think, that all teachers should exemplify art not only in their teaching, but in their conduct, in their personal

appearance, and in the appearance of the school room, including desk, bulletin boards, blackboards, and the placing of furniture and other equipment. All teachers of manual training are art teachers.

The keynote of activity today, as was expressed night before last, you remember, by the President of this Association, is SERVICE. *There is no occupation, it seems to me, in which a knowledge of the principles of design will not make for more effective service.* The business man needs art in order that the things produced may be serviceable, and I think that in no other occupation, perhaps, is a knowledge of the principles of design more essential than in our own profession of teaching. Therefore, we are for art, whether we are teachers of industry, or teachers of home economics, or teachers of any other branch of education. Nevertheless, there is in certain sections, I am quite certain, a misconception among educators, as to what art really is.

A book for teachers recently came to my attention, and on examining it I noticed one chapter devoted to the differences that are supposed to exist between fine arts on the one hand, and industrial arts on the other. I am not conscious myself that there is any real difference between fine arts and industrial arts. There may be a point where fine arts begins and where industrial arts ends. There may be a dividing point, but I don't believe that there is. We cannot say just when day begins and when night ends; there is a gradual change. I think this is true with respect to the fine arts and the industrial arts. Certainly, many objects of art we can scarcely classify as either fine or industrial.

I had an argument with the author of the book referred to and we discussed the subject somewhat at length, the author maintaining that there is a vast difference and I trying to defend the point that there is no difference at all. Then it occurred to me that some time I should like to say a few words at a meeting like this one on the topic, "Art is both fine and industrial." Fortunately, there soon came along an invitation which gives me this very opportunity to acquaint you with my side of this important question.

Mr. Pelikan, in his introductory remarks, has already used some of my thunder. He told you something about the qualities inherent both in fine art, and in industrial art. He said that fine art represented the fine side of art, or something to that effect, and that industrial art was the mechanical side, or something to that effect. His statements obviously are true; these elements are characteristic of all art. The fine side is that which deals with the mental, the intellectual and the spiritual, while the industrial side is that which deals with the mechanical, the scientific, and the material. I believe that all examples of art have in them elements fine and elements industrial, whether the work has been done by hand, by the hand aided by tools, or entirely by machinery.

Art is indeed industrial, as well as fine. Yet someone may inquire how is it that if art is expression, certain industrial products can be regarded as works of art when there does not on the surface seem to be any expression about it? I would answer, that it all is a matter of degree. Some of us may express ourselves in paintings, in pictures, some may express ourselves in utensils. There isn't nearly as much expression in a vase as there is in a picture, yet there are various kinds of vases. I have seen some vases which are beautiful; I have seen some that were not. I have seen some beautiful pictures, and I have seen some pictures that were not beautiful.

There was a time when architecture, sculpture and painting were regarded as the three fine arts. Before that time I am of the opinion that fine art was limited quite generally to painting and sculpture. Finally, architecture was admitted to be a fine art. It was decidedly later that people conceded that there was any such a thing as art in industry.

Art is expression, of course, but expression isn't art, necessarily. Art is emotional, sometimes, but not always is it emotional. Emotion is more than passive feeling. Many works of art express feeling which could scarcely be said to express emotion, yet feeling and emotion are not art. Art is creative expression of feeling or of emotion in appropriate form, with skill in design and technique as the determining factors of excellence. In this definition we shall find perhaps, that feeling and emotion may represent fine art, and technique and design may represent industrial art; for both are as closely united in reality as they are here in this definition.

Art is industrial as well as fine. I am visualizing now "Peace and Plenty," a picture by George Inness. I think that in this picture art is industrial as well as fine. There is emotion expressed in the picture; at least, there is feeling. Perhaps we have come to use the words *emotion* and *feeling* rather indiscriminately. Emotion is intense feeling. A great many works of man, a great many paintings, are fine and are also works of art, you may want to call them works of fine art, which do not express emotion. They express feeling. Again it is a question of degree.

In "Peace and Plenty," by Inness, I look out over a field at harvest time and I can feel the very atmosphere. I can see the trees sway in the wind; I can hear the birds singing; I can hear the men pitching grain as they call to their horses; and I can put myself in the place of Inness as he painted; all of which has to do with interpretation, feelling, but not with the rules of design.

In order to paint "Peace and Plenty," George Inness had to know about design. Perhaps he didn't study design as a subject in school; perhaps he wasn't schooled in space division and balance and rhythm. No matter how he acquired his knowledge of composition, we must admit that he knew a great deal about design, or he could

not have painted this picture. George Inness had to mix paints, he had to stretch that piece of canvas, which, if you have seen the original in the Metropolitan Art Museum, you must admit is a very large piece. George Inness had to be materialistic, as well as esthetic, and in the painting, "Peace and Plenty," I can see illustrated well the proposition that art is industrial as well as fine. And I think that artists long before the time of Inness may have realized this fact, although at the time when Inness lived people quite generally had come to separate the fine arts from the industrial arts. When the painters had not only to mix colors, but also to make them; then, I believe, the arts must have been more closely united than they have ever been since. Then painters were not only painters, but were also makers of pigments, polishers of glass, workers in metal, sculptors, architects and industrial workers, all at the same time. Then pictures were painted to decorate walls and not to be put in frames; then all people must have conceded that art is industrial as well as fine.

This morning I took a walk about Indianapolis and I went through a square called University Park. I saw a fountain in the center of this little park. I don't know what the people of this city think about that fountain, and I don't know how the art critics regard that fountain. I think perhaps it is better that I do not know very much about the fountain, because now I am quite free to hold an opinion of it. I wanted to know who the sculptor was. I asked several people and they didn't know. Is that an indication of universal art appreciation? I wonder if the people of Athens in the time of Pericles knew who was the sculptor of the Athene. I wonder if they knew then who the people were to whom they were indebted for such works of art. I rather think that they did know. I rather think that at that time they gave credit to the artist as being a person worthy of recognition.

I walked around the fountain. I looked in vain for the signature of the sculptor, all of which is very materialistic, isn't it? I feel that I responded to that fountain, that I reacted "emotionally," as they say. To me it was beautiful. To me it symbolized exactly what I think it was supposed to symbolize,—Youth, or the Spirit of Youth. The spirit of youth was there! There was feeling, if not emotion. There was design; if there was more design there than there was anatomy, I don't care. I like design better than anatomy anyhow. There were movement and balance. There may have been other things present, too; perhaps I wasn't critical enough to find the faults. To me it seemed that a beautiful idea had been expressed in a beautiful way.

But there was also material there; there was granite and there was bronze, and the man who conceived the group probably made a sketch with his pencil and paper, and he must certainly have made a model with clay or with modeling wax. But he was not the only

person concerned. The model had to go to the foundry, and there men in overalls worked with sand and other materials and they made a pattern, built a fire, and heated metals and formed an alloy, used the pattern in casting, and finally, when the forms of the figures came from the molds, the figures had to be worked on by mechanics, artisans. Artists in the time of Benvenuto Cellini—they thought themselves artists—many of the great masters began in the foundry. This also may be true for some of the future artists of today.

After I had spent but a few moments with the fountain, on looking up, the great mass of the Indiana War Memorial loomed at the end of the open space. I was much impressed, I must admit, by my first view of this great memorial. Something within me stirred, responded. Size had something to do with it no doubt; the shape of the mass had something to do with it; recalling what the memorial symbolized had something to do with it; obviously detail had little influence, because I was not close enough to the building to see detail. The memorial is still unfinished. My later impressions were probably tinged to some extent by the unfinished condition, the fact that the thing was still growing, that men were at work on it, all of which is more emotional than technical, but again this great mass of material began on paper, and a model was made, and in the finished structure we have stone and steel. To me the great memorial was typical of all architecture. It called to mind the fact that our Nation has in modern times developed architecture beyond that of other nations. Many of the new buildings, the sky scrapers of our large cities, especially, are thought to express our American life and ideals in a clearer way than the buildings of other countries at the present time express their life and ideals.

However that may be, I was never moved by any work of architecture as much as I was moved sometime ago by the Shelton Hotel in New York City. I was walking down Lexington Avenue just before sunset, and without knowing that I was approaching the great building, I was struck all of a sudden, on looking up, to see the great bulk of the hotel before my very eyes, all illuminated, each little window away up, ten, twenty, thirty stories above the street! It surely expressed the modern, if not the modernistic, tendency in our American art.

And I think that yesterday when it was my privilege to take a drive around the city here with a friend, that the automobile in which we rode was a work of art. There was beauty and feeling in its very line; there was expression in its form. As Clyde Bell might be expected to say it, "Its form was significant" throughout. There was a high purpose to its very upholstery, and although I could not see the motor, appreciation of industrial art was concerned, I am quite sure, not only with visual but also with auditory images, for the

way that motor performed was an evidence of the application of the laws of rhythm and of perfect balance.

The chief concern of art teaching in the schools today is to create an appreciation of art, and by appreciation I mean more than an understanding of art in all its forms. Appreciation implies understanding; it often implies enjoyment, but if you were to look up the word *appreciation* in the dictionary, as I did (I don't think all of us use the dictionary as much as we should) you would find that one synonym of appreciation is evaluation. To appreciate, one must be able to evaluate, and he cannot evaluate well without knowing; so it all comes back to knowledge after all. Knowledge cannot be gained entirely from books; it has to be gained through experience. Books are useful only because they record the knowledge which has been gained by others through their experience. Knowledge is not all that there is to appreciation by any means, but it is probably true that what we know bears some slight relation to how we feel.

Let us treat our school subject, if indeed we must teach a school subject, as an art. Let us teach pupils to appreciate the art that is in it. Supposing our work is cabinet-making, or wood-working, just as an example. Pupils ought to know what cabinet-making is all about, in other words they should know what constitutes cabinet-making. When I was in high school I took a course called cabinet-making, and I finished the course thinking that joints had most to do with it. Now, of course, a joint has a good deal to do with cabinet-making; a joint has a good deal to do with anatomy, but I don't think a person who studies sculpture very long goes away with the idea that the study of sculpture has to do only with joints. It goes far beyond that.

The finest cabinet-makers of all time have expressed themselves through their work; they have been designers; they have been artists. Perhaps we have fewer such artists today than formerly. I know that one furniture manufacturer (I believe, of Grand Rapids—you are quite safe in saying Grand Rapids when referring to furniture) put up the sum of five thousand dollars as a reward to the person who would produce something new in furniture design. Various designers submitted plans, but nobody was given the full amount of the prize. A number of persons were given part of it. It was announced that nobobdy had completely qualified, and the president of the company put up the same amount of money a second time, and he intends to keep on putting up money until finally somebody does contribute a design which expresses American ideas in furniture construction, just as adequately as American ideas are now being expressed in our architecture.

Perhaps this is a worthy ambition; I don't know. Perhaps, however, we are fortunate in inheriting in our furniture the traditions of Louis XIV, Adam Brothers, Sheraton and Hepplewhite. Perhaps it would be better to hold to our inheritance and to use it to the best

advantage rather than to disregard it entirely. It is only natural to want to grow, and it is only natural also to want to excel others, and to express oneself. Nevertheless, it is equally true that none of the styles of furniture of former periods exactly expresses what most assuredly ought to be expressed by furniture design at the present time in the United States of America.

Pupils in studying any industrial occupation, we will say cabinet-making, ought to know what it is for, ought to have a larger view of the field. The student ought to be taught about how expression functions, how a person may express himself in design, and how design is created and used in the particular line of work. Form in cabinet-making should be taught, and by *form* I mean the entire formation of the product, beginning with the first conception and ending with the finished product. Students ought to be taught what constitutes qnality in a fine piece of cabinet work, and that quality is not expressed entirely by materials and by use; that quality is expressed by structure, by color, by finish, and in many other ways. A boy being instructed in the art of cabinet-making ought to be taught about the masterpieces and even about the master cabinet-makers, themselves. There are heroes of industry that are far greater than the heroes of war.

It is needless to point out that the vocational aspects of cabinet-making, or of any other art for that matter, should be given an important place in the course. A recent addition has been made to the faculties of many junior and senior high school departments, the addition of guidance experts. Perhaps we do need them. On the other hand, may it not be a reflection on us that we do? If every teacher would consider guidance as an important part of his teaching task in connection with the study of various arts, then the vocational guidance specialist would no longer be so necessary.

In connection with the general topic of appreciation, I want at this point to say a few words about the use of reference material. All teachers ought to get the museum habit, if they haven't already acquired it, and I assume, of course, that there is a museum in the immediate vicinity, or not far away. Pupils, too, ought to acquire the museum habit, because the museum often displays the very best things, but even more often, the good, bad and indifferent things, which is somewhat better than the best for educational purposes, and because by coming into contact with all these things in the museum, our standards of taste will be raised.

Teachers and pupils should also be initiated into the library habit, for books contain a great deal of valuable material, not only in the form of subject matter, but also in the form of illustrations.

The stereopticon is very essential, and I am glad to see two here today. The stereopticon is just as important in an industrial or an art department as is a phonograph in a music department. Our work

has to do with things that we see. If we can have original costumes to talk about when we teach costume design, so much the better. If we can have rugs to show when we talk about art in the household, that too is fine, but if we cannot have such things, we can at least have a lantern that costs sixty dollars and slides that cost forty-five cents apiece. An entire class of children can look at one picture at the same time. Thus a little money can be made to go a long way.

I think that even in a course in woodworking, pupils should begin to make collections of things, should keep them in a portfolio or notebook, and I feel that art and design should form an important consideration in all this work. (I realize that most that I am telling you, you already know, yet it may be well to remind ourselves occasionally that such things are important.)

We want to help our pupils to acquire good taste. We cannot teach taste. We can expose pupils to good, bad and indifferent things; we can create situations where they will be required to choose; they will raise problems, or we can raise problems, the solving of which will require judgment and final choice. In this way taste should develop.

One of the most valuable experiences in my life as an art teacher was one that occurred some years ago when I happened to be walking with the late Dr. James P. Haney of New York. We had an hour or so to kill. Dr. Haney didn't say, "Let's run to the movie," but Dr. Haney said, "Let's take a walk." He didn't say, "Let's take a walk in the park," but rather, "Let's take a walk right down Broadway, and perhaps we will go over on Fifth Avenue." We spent an hour and a half, and we covered all of the shop windows for at least ten blocks. You all have gone window shopping, haven't you? But I wonder if window shopping is always as profitable as it was to me that afternoon when I had the privilege of window shopping with one of the greatest art directors that I think America has ever produced. I had as good a lesson in art appreciation that afternoon as I have ever had in my life, and it has made more of an impression on me than any other.

The objects shown in the windows, whether they were good, or not, and why; whether they were arranged satisfactorily or not, whether there was too much there or just enough; every window to Dr. Haney was a design. Every person that he met was a design, and I think if we could all develop a similar critical attitude, it would assuredly bear fruit in our conduct in many ways; our homes would improve, our cities would improve, our streets would improve.

After spending that afternoon with Dr. Haney, and after visiting New York and other cities many times since, and after noticing what an improvement there has been in dress, what an improvement there has been in the shops, what an improvement in all manufactured things, I have sometimes wondered just how much credit ought to

be given to Dr. Haney and to his contemporaries and to the many other art teachers and supervisors and directors who have since that time been doing so much to cultivate taste and to improve the appearance of things throughout the United States.

In conclusion, let us not forget that art is industrial as well as fine. It may help us to guard against the fallacy of becoming altogether too theoretical on the one hand, or if becoming, on the other, altogether too "practical." We want to include in our work as teachers, whatever that work may be, the elements which represent both the fine qualities in art and those elements also which represent the material, technical, scientific aspects.

Art in Printing

J. L. FRAZIER
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MR. CHAIRMAN, Ladies and Gentlemen: While type display must function in various ways if it is to be successful, it must, above all, get attention, invite reading and be easy to read.

The effectiveness of type display does not depend on any one's individual likes and dislikes. Fortunately, the essentials of beauty and effectiveness are known and easily applied. Whenever you depart from those essentials, or fundamentals, the result is unsatisfactory. I feel that this is particularly fortunate insofar as concerns instruction in schools where some reason must be given for this and for that, and to justify doing a thing this way, or that. Otherwise, there would be no sound foundation upon which the student could build his knowledge of typography.

I will discuss typography today from the standpoint of the three essentials mentioned in opening and will emphasize the fundamental principles involved with pictures thrown on the screen. I know how important these are and what they will do because I have seen people without good taste develop it through the study of those principles which not only underlie good typography, but everything which appeals to the sense of sight.

The first thing I stated type display must do is attract attention. It must, therefore, be attractive and pleasing. There is such a thing, of course, as getting attention in other ways than through beauty, but beauty will always remain the most effective means for getting and holding attention.

The weird advertisements we now see on every hand, and some of the type faces that have come into being as the result of the craze for something different are without a good foundation and the craze will quickly die out. These weird type faces, for the most part, brought from other shores, may express the modern spirit, but they surely express the idea of getting attention at the expense of holding it. What good is attention that cannot be held? We want attention that can be held so what we say in our publicity, or in our books, or whatever form our printing may take, will achieve the result intended.

So far as appearance is concerned typography is governed by the same fundamentals that govern the design of a building, a beatuiful piece of furniture, or any other thing in which there may be an element of esthetic appeal.

The first of the fundamental principles is shape harmony; that means all the different items used in our typographical forms must be of the same shape.

Before you, on the screen, there's a business card in which five different styles of type are used. It is plainly unsatisfactory. You migh show that card to a dozen people who had given no thought to art, and they would say, "Well, it is not attractive." Should you ask them why, they'd probably say, "Well, I don't know."

The advantage of knowing those fundamentals of art is that it not only develops taste, but enables one to put his fingers on the spot, so to speak, and tell wherein an item of printing fails.

The card on the screen falls short of being successful because the type faces are of different design, but more especially because they are of different shape. You cannot use extended and condensed styles of type faces together and get pleasing results.

The resetting shown at the bottom of the screen is more satisfactory, particularly because the type faces are of the same shape.

However, we should go a step further. Our designs should not only be composed in type of the same shape, but the type should agree with the shape of the space occupied.

I am not holding a brief for extended, or condensed types, for, personally, I believe odd shapes of type, types wider or narrower than standard, do more harm than good as a general thing. I am quite sure that in ninety-nine cases out of a hundred you can take type of regular proportions and use it satisfactorily on any shape of space or page. It balances up and seems to fit satisfactorily regardless of the proportions of the page.

However, to see that there is such a thing as shape harmony and that extremes in shape bring about extremely bad results, consider these two examples: The type in the panel on the right is narrow; that in the one on the left is extended. The effect of the latter is unpleasant; you sense at once an incongruity between type and space.

Although not a thing of beauty and a joy forever, the panel on the right is much more satisfactory than the one on the left. The reason for its being so is that the shape of the type and the shape of the space agree—both are narrow.

We go a step farther in our efforts to show that consideration must be given to the matter of shape, when we take up this cover design. The type face, you see, is condensed; its long dimension is vertical. That is incongruity No. 1, for the page is oblong. But we go on and find the matter on this page divided into three parts. There is the panel at the left in which the ornament appears; there is the group of the main display, and there is the group at the right wherein the name of the hotel is given. The long dimension of all three groups is the vertical dimension, whereas the long dimension of the page is the horizontal dimension. Inconsistency—consequently an unpleasant effect.

The resetting at the bottom is much more satisfactory, because an extended type face is used, and the arrangement is in accord with the shape of the page. In other words, the horizontal is emphasized all the way through as it should be.

Now, we see, on the left, a booklet cover—a narrow page. The long dimension is vertical. The type face is extended and the panel in which it appears is oblong, both contrary to the proportions of the page. Note, furthermore, that the border runs from side to side, horizontal, too. We have a narrow page with everything in it horizontal. The effect created by the page on the right is much more satisfactory. The influence of the direction of the lines in that border background is pronounced in making the page so much more pleasing

It has often been said, "You cannot put a round peg in a square hole." Likewise, you cannot make a rounded border with square type, or a square border with rounded type, look good.

In the figure here presented you will note that the type is italic and that in general effect it is curvilinear. The border is rectangular, or square-cornered. In the example on the right the type is square in shape, and the border is of curvilinear form.

Neither of these panels is satisfactory, because the border and the type are inconsistatnt insofar as shape is concerned.

In the case of the two panels at the bottom, note that the border of curvilinear units appears around the type of curved form, and that the rectangular border is around angular, square-cornered type. There's a pleasing effect about both, even though the details are not the most artistic.

Now, the hobby-horse illustration there is an ornament—one of a series called Mission Toys. A great many printers in other days used the slogan, "Good Printing Our Hobby." That may be the suggestion this printer wanted to convey when he selected this hobby-horse ornament for his business card.

However, that is not my object in showing this page. The real purpose is this: You cannot mix different periods of furniture in a room and expect a harmonious effect. Related periods of furniture may be combined if there are details in both that harmonize. In Louis the Fifteenth furniture, however, there can be no such thing as a straight line, while in the mission style there can be no such thing as a curve. In the case of types the same applies. Here, however, we find a printer getting up a business card in which the type is suggestive of the Louis Fifteenth style of furniture, and the illustration of the the mission style. No one of artistic taste would think of grouping Louis Fifteenth chairs around a mission table. But we see such inconsistencies very frequently in printing.

The illustration now on the screen simply shows what can be accomplished toward a pleasing effect when all the details in design are of the same general shape. The type and the border, everything about it, in fact, suggests the same feeling, and although the design is a very simple one, the result is very pleasing.

Shape has other applications, or other angles, I should say, in respect to contour. Contour may be pleasing and graceful, or it may be ungainly and awkward. The example at the right, here, is ungainly. In that secondary group, under the word, "style," we find three lines of about the same length, then a line that is considerably longer, then one that is considerably shorter, and finally another long one. The general outline does not follow a pleasing, graceful course. So we find that in the arrangement of our designs, the determining of the length of line and the breaking up of the copy into lines in such way as to define the general form or outline is quite important. If the form of those lines together is of graceful shape—as in the example on the left—the appearance is much more satisfactory than when the form is awkward and irregular, and does not suggest any definite shape.

We pass on, then, to another fundamental of art that applies to typography, tone harmony. Tone harmony implies that the tone value of every item in a design should be the same. If the most pleasing and agreeable effect is to be the result, such uniformity in values must be evident.

Here we show four tones—light gray, dark gray, medium black and dead black. Each is pleasing in itself, because the tones, throughout, are consistent. These are only four of the many tones that might be so indicated, extending from white, on one side, to black on the other, throughout different degrees, or variations of gray.

The important thing, however, is that the tones should be uniform. To illustrate that point in the simplest manner, these three groups of type are shown. In the upper one only light faced type is used; in the middle one, only bold faced type is used, and in the bottom one both light faced and bold faced types are used, without any

effort at creating a pattern, or a pleasing effect, other than to just mix the two styles of type together.

Now, I take it that there is no one here who will maintain that the lower example shown, is more pleasing than the two upper examples. Certainly not. So the examples must prove that the effect is much more pleasing when all the items in our designs are of the same general tone.

Now, here is an example that proves the point just made more effectively. We have two pages of the same general character, except that in one the border is very dark and in the other the border is light. Which is the more satisfactory? The one at the right, undoubtedly. There is not only the unsatisfactory effect, due to lack of tone in the illustration at the left, but there is the further fact that if we apply contrast of tone to make items of the least importance seem more important, we invite the reader to pass over the things that are of the most importance. If there is to be a greater strength of tone in any part of our design, it should be applied to features of most importance.

Here are two examples, each of four lines. The first four lines show inconsistencies in tone. In the first line the rule underneath is too light; in the second line the rule is too heavy; in the third line it is too heavy, and in the fourth line it is too light. In the four lines that follow consideration has been given to the heft of the type in the selection of the rule to be used with it, and the effect is wholly agreeable. For those who wish rules to go by, let us say that a rule used as an underscore, or as a border, should match the heavy elements, downstroke, of the type used in connection.

Proportion, our next fundamental, is sometimes very loosely used as a term. Its application is somewhat varied, too. But it is no mystery, whatever. Proportion is pleasing variety existing between parts of one thing or different things. By way of illustration, consider these four panels—one exactly square, one very narrow, and two that are nearly alike. This square panel is not pleasing, because it is monotonous. There is no good proportion there. The narrow panel at the right of the square one is not pleasing, because there is not a pleasing relation between the two parts. There is too great a difference.

Hundreds of years ago the Greeks laid down the rule of proportion that stands today. It is that the small part shall be to the large part as the large part is to the whole. Now, that works out something like this: Three is as to five, as five is as to eight; therefore, a page that is three inches wide and five inches deep is of ideal proportions. This, called the "Golden Oblong," is illustrated at the left, below.

However, there are many who claim the two to three ratio, the six by nine page, shown in Figure 4 on the screen, is more pleasing.

The point, however, is that the "Golden Oblong," or the page

of two to three ratio is much more satisfactory than the square or the one in which the width is too small in relation to the depth.

Another application of proportion is shown here. A comparison of these pages shows that type may be too large, or too small for the page. In the page on the left the type fairly crowds the border out; the type is too large. On the other hand, we feel that the type is too small. In the illustration at the bottom, the type seems to be just about right in relation to the space occupied, so we find that proportion applies to the size of type in relation to the space it occupies.

Proportion also applies to the division of a page. Dividing a page in the exact center, as in "B," looks bad because it is monotonous. If we divide it close to the top, as in "C," the relationship of the two parts is not pleasing. There is too great a difference. Dividing it slightly above center, to overcome an optical illusion that causes things in the exact center to appear below the center, and it also looks monotonous.

However, if we divide the page where the upper section equals two-fifths and the lower section three-fifths of the page, we have a very pleasing division. Such a division represents good proportion. Has this idea a practical application? It assuredly has. We are doing a cover, say, and put the title line in the center; it doesn't look right, as you can see. We place the line close to the top, and it also doesn't look right. The reason is that the lines are not placed in such position that they divide the page into two parts having a pleasing ratio in proportion. If we place it as shown in the illustration to the right, three-eights of the distance down the page, the effect is very satisfactory. The two parts of the page are then in pleasing proportions.

We know that equal weights will balance when placed equal distances from the center. When it comes to typography, however, we do not balance things vertically from the exact center because we must give consideration to variety and proportion, and because of the optical illusion which causes a thing in the exact center to appear to be below the center.

So we find the best place to balance our designs on a page is from the center of the line that divides the page into two parts on the two to three ratio.

In balancing groups of type on a page the smaller group must have the advantage in leverage to compensate for the advantage that the larger group has in weight, that is it must be relatively farther from the center of balance.

In the case of example B, I could raise the upper group if I wanted to, but I would have to lower the lower group at the same time. Such shifting may be done in the interest of good margins; the same two units may be balanced in other positions than shown.

Example C is to show that balancing is not a matter of area, alone, but it is a matter of tone strength. In other words, one mass

of bold faced type will balance a group of light faced type double its size.

We finish, therefore, with vertical balance, and take up horizontal balancing. The whole story is told by D, from the fact that the margin from the left-hand side of the border to the ribbon on the watch, is about two or three times as great as the margin from the group of type on the right to the border on the right. Why isn't the margin the same on both sides? It is because the fob on the watch is so much heavier than the group of type on the right, that the group of type must be further out, in order to have the advantage of leverage to compensate for the advantage in weight that the black ribbon has.

The major weight in a design should be at or near the top of the design. We have at the left an illustration in which the bulk of the design is below the center. The resetting at the right is much more satisfactory because the weight is where it should be—at, or near the top.

You can see by comparing these two examples—that the appearance of this one on the right is much more satisfactory than that of the one on the left. Even in a group of lines, as in a heading, the appearance is better when the longest line is first.

Now, we have been talking about balance more or less as symmetry. Symmetry means formal balances—all lines centered in a design, as you see in Figure B. It is possible, however, to have a balance without symmetry. In other words, what we call informal balance. You have different forms on both sides of your center line, but the area of the part on the left-hand side, although not of the same shape, equals the area of the matter on the right-hand side. This constitutes good balance off center.

Attention is arrested through other factors than the appearance of the advertisement or other piece as a whole. One way is through the display. The thing to remember is that type talks. One of the greatest mistakes, however, that people make in their display work, is to assume that the larger the type, or the bolder it is, the more emphatic it will be as display.

The basis of all display is distinction, contrast. A line of type of medium size may look bigger than a larger sized type, owing to the surroundings.

Here we have the word, "contrast," exhibited in two different groups. It stands out in the upper example, and does not stand out in the lower example. The fact that it stands out in the one and does not stand out in the other is because of the fact that it is relatively larger than the surrounding matter.

We have a tendency to read the big lines in an ad, before we even consider the smaller lines. That being the case, we should exercise judgment in the selection of words to be given emphasis.

Now, the whole subject of display—everything that pertains to display—may be explained by the simple examples now before you. As far as type itself goes, every device of display is illustrated by these little panels, which range from the simplest to the more complicated.

First of all we have four lines in a straight paragraph, set in type that is easy to read. It is not as quickly read as the example below, where words related to each other are grouped in lines so that each line carries a definite thought.

You know that we naturally pause at the end of every line, particularly lines of irregular length, as in display matter. We have schooled ourselves not to do this in regular reading matter, it is true. And to make our type matter as comprehensible and readable as possible, it is proper that we should mark pauses where they should occur, to subdivide the thought in order to make it clear. In display we do this without punctuation points, by breaking lines according to the sense.

We go a step further in the lower example, and introduce a white space where we not only have words grouped according to sense, but also lines. The first group tells what display is, and the second group tells what display accomplishes.

We go on further and set the more important words in italics—another device of display. Then we go on and set the important part of the display in a larger size, but the same style of type, and we have illustrated one more device of display. In the last sample, we introduce a different style for contrast—an important thing—and with it have utilized every device known to display, insofar as the type alone is concerned.

But there should not be too much display. Over-display is no display. In the example now on the left, so many points are displayed the effect is confusing. It is like a number of people trying to get your attention, and all talking to you at once.

Scattering a display weakens it. Consider these three examples: There is just as much black in the combined squares of Figures two and three, as there is in the one square of Figure one. But Figure one makes a much stronger impression because the force is concentrated.

The more details you try to put into display—your space being fixed—the smaller your display must necessarily be. This ad on the left emphasizes the weakness of scattering. The one at the right emphasizes the better effect of concentration.

Remember what emphasis is for—to place significance—stress upon certain important parts. If you try to emphasize everything you achieve tiresome monotony—an emphasis which is not emphasis, at all, as the topography of this paragraph shows. Underscoring words does not make print more impressive, or easier to understand. It merely

clutters it up, and makes it less inviting to look at, and harder to read. Also, it is apt to look like an affront to the reader's intelligence.

This example shows that the dominant display should be at the top. If it is at the bottom it overbalances the design, also naturally draws the reader's eyes from the upper part of the design.

Contrast is at the bottom of emphasis, and throughout your ads and other forms you should be sure that your display is so arranged that it holds the eye of the reader from start to finish, in a logical and pleasing way, as illustrated here. Display should be progressive throughout.

Borders often overshadow types. The type seems much blacker and sharper in the ad at the right than in the one at the left. Why? Because the decorative border in the illustration at the left is so pronounced it draws too much attention to itself.

White space is one of the most important methods of emphasizing display. Here we have an advertisement set altogether in one size and style of type. It is set apart by a white space in such a way that the first line is instantly assumed to be the head or title. Emphasis is given the last two lines by the white space above them.

One would think that the heaviest rule that could be inserted between parts of an ad would be the most definite and striking division that could be made. Such is not the case. Furthermore, heavy rules reduce the effectiveness of type, as you can see here. Instead of providing divisions the rules, as here used, simply overshadow the type, so that you can hardly get at the titles of the books that are advertised. How much different this advertisement. There are no cut-off rules—only white space—and the contrast of the black, bold face type of the heading, and the light face type of the text making the divisions.

White space can be distributed evenly, as you can see on the right, or it may be massed on one side, as indicated on the left.

The use of white space can be carried to extreme, as shown in the illustration at the left. The point I want to make is that for the sake of white space type is often set in too small sizes. The illustration at the right has the same text matter, but it is in a more readable size of type. Because of a better disposition of the white space the effect, however, is not at all crowded. It is better to have your white space around the display than scattered through it.

This example now on the screen does not invite the eye. We do not respond so much to force as we do to invitation. Force may get attention. Bold face type may get your attention, but the attention that counts is the attention that is held. The fleeting glance doesn't do the advertiser any good. This advertisement in the example now before you invites the eye. It persuades rather than trying to compel through sheer force.

Type can frequently suggest the quality of the article advertised.

Suppose you are advertising an automobile truck. You suggest in your copy that it is of very sturdy construction, that it is very powerful, and all that. You would not think of advertising those qualities in old style italic type. You would think that heavier, bolder type would be the thing to use. If the character of the type used suggests the qualities of the article advertised, the impression is bound to be stronger.

Now a few words about legibility. I can appreciate what the advertising manager said to the artist—if he can be called such—who designed the advertisement now shown. Some people think that type is too common, but let me say that there are enough faces in existence today—as Mr. Philips can tell you, and prove to you—and that they are more beautiful than lettering you can buy. The designer of this ad was thinking of doing something unusual, rather than that he was doing something that people were supposed to read.

Now, here are four panels of type, showing that even in the matter of legibility there are differences. Look at the first example—the letters are unusual, fanciful in their form, and not as legible as they should be. The next group is composed in type that is also not legible. Below we find bold face type is not as legible as light face type. Coming down further we find Century old style type, which is not very beautiful, but is much used on books. While not as readable as Century expanded, its modern prototype, it is a very legible letter.

By comparison of the types shown here we see that the plain Roman type is the most legible style.

The type illustrated here is from an advertising text book, and it was commended highly by the author, as creating atmosphere. It certainly does. It bars almost everyone from reading the advertisement, because it is set almost entirely in capitals. Capitals are not as easy to read as lower case, because the capitals are all of the same height. In lower case each letter is of different form, and since we read by words, rather than by spelling them out, lower case letters are best. They make every word look different, so far as contour is concerned, whereas every word in capitals is the same general shape, a rectangle.

Too many different kinds of types in combination also make printing hard to read.

Length of line also affects legibility; lines may be too long to be read with ease. The larger the size of type, of course the longer the line may be. The maximum length depends on the size. The ideal length of line is about forty characters of the type in use.

This page is shown primarily on account of the text matter at the bottom. Lines, as well as words, need spaces between them. The first group is solid, the second is leaded, and the third is double leaded. The lines can be too close together, or too far apart. The middle

group is much more satisfactory because the lines are spread apart with standard two-point leads.

Spacing words too far apart handicaps reading. It used to be the rule to put three-m spaces between words. Now we find that the space can be narrowed to two-m spaces and the matter will be much more legible. In fact, that is the practice today.

Here are more points on legibility. In the example at the top, for instance, the different items are listed and classified, and you will see how much more inviting the typography is than in the example at the bottom where these items must be searched out.

The lack of orderly arrangement in this advertisement so befuddles us that we cannot keep it straight without much difficulty. How many lazy readers will trouble themselves with it? Order is the first law of typography.

Now compare the page with this orderly arrangement. Notice that the ad is so classified and arranged that one takes up one point after another in its logical order, getting the gist of the whole thing in the simplest and easiest manner.

Dress Design

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THE important points to consider in selecting clothes are the following:

1. Design—must be suitable to the wearer.
2. Color—must suit the wearer.
3. Personality—the personality of the wearer must be expressed in the clothes.
4. Consistency—entire costume must be consistent.
5. Suitability—must be appropriate for the occasion worn.

1. *Design.*

Simplicity is the most important element in good dress design. For this reason men dress in better taste than women, as their clothes are simpler. Any trimming should be reserved, self-trimming being a very effective form to use.

Misses dresses are usually better designed because they are plainer than those made for a mature woman.

Each dress should have some distinctive feature that will lend individuality.

The expensive clothes are usually better designed, as expert designers are employed. Paris dressmakers, such as Beer, Jenny, and

Worth, still set the fashions for the world, but are now very much influenced by what women want, especially the American women.

Corrective dressing is necessary for the unusual figure, lines being used which will counteract any peculiarity. Overweight and poor posture are unnecessary and regrettable, as they spoil the lines of any costume.

The present fashions tend to good design; as the lines of the garments follow the lines of the figure, and are comfortable.

Clothes of the present day seem to well express the time in which we are living. There is a sleekness about the clothes that is a reflection of the simple strong lines of the automobiles, motor boats, etc. Good design is not in the decoration, but in the structure, as in the good modern architecture of this time. The intensity of our age, and the athletics seem to require clothes that will not impede our rate of speed.

2. *Color.*

For street and business wear, the neutral colors, gray, beige, tan, brown, navy, and black are the only ones allowable.

The best dressed women avoid bright colors, particularly women past the college age.

Evening dresses of black or white can be worn most often without being noticed particularly, and are therefore economical.

It is best to have one color scheme for each season, as, for example, tan and green. Changing this only slightly for the next season will allow for use of left-over clothes. One should never buy hastily, and should buy preferably where it is possible to return things. One should get all accessories such as shoes, gloves, bags, umbrellas, etc., in the same color scheme. It is best to buy the coat first, and then purchase the other articles to harmonize.

One's head is the keynote for the color scheme. Usually people can be classified according to their coloring into cool, intermediate, or warm types.

Persons of the cool coloring come under the following varieties:

1. Blondes.
2. Irish—black hair and blue eyes.
3. Grey hair.

They should all wear the cool or light colors, as blue, green, gray, etc. Blondes and grey-haired people should avoid very dark, strong, or warm colors, as they overpower the delicate coloring of the wearer.

The intermediate type has brown hair and blue eyes. People of this type can wear any color that is not too contrasting.

Persons of warm coloring are of two kinds:

1. Brown hair and eyes.
2. Red hair and brown eyes.

People of this type should wear the warm colors, such as tans, browns, reds, yellows, oranges, etc. The vivid, young brunette is the only one who should ever wear brilliant colors, especially reds.

The clothes must not attract more attention than the face of the wearer.

3. *Personality of Wearer.*

Dress should be a background for the personality of the wearer. Characteristics should be displayed, not concealed; as retiring, assertive, etc. An individual is someone definite and distinctive. 'Be yourself' is a good motto to follow.

Actresses exaggerate their qualities to be interesting. Thus Pola Negri is the emotional type; Lillian Gish, the sentimental, and so on through such types as the athletic, business, mannish, artistic, dramatic, ultra-feminine, domestic, flapper, etc.

I have heard of older women who made a decided change in their own occupation and personality; thereby gaining added happiness and interests.

The material and jewelry should suit the type of person; for example, they should be very delicate for delicate types of women.

4. *Consistency.*

All accessories must register the same idea as the dress. Thus for a sport costume there should be sport shoes, hat, gloves, purse, hose, etc., all in keeping. An afternoon costume would call for a dressier hat, pumps, silk hose, etc.

Large hats are often good with dresses, but are never satisfactory with suits or street clothes. Older women must not wear hats narrower than their faces, nor with turned up brims.

For a college costume lisle hose with oxfords, and a jersey sport dress are very appropriate.

5. *Suitability—appropriateness for the occasion worn.*

Modified sport styles of clothes should be worn for the street, business, school and very informal afternoons.

Softer dresses should be worn for luncheon, matinee, tea, Sunday at home, and similar occasions.

No hats should be worn with evening dress, which always demands transportation. In Europe evening dress is expected for all evening wear, but in America it is better to be conservative, rather than feel overdressed.

Imitations, such as of leather, fur, silk, lace, or jewelry should be avoided.

Art Education for the Development of Taste

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FELLOW Teachers, I am glad of this opportunity to address the Home Economics group. This morning I talked for a while to the Manual Training teachers, but I find that whereas many of the women are interested in manual training, apparently there is not nearly as great a proportion of men who are interestd in home economics. The interest should be more equally divided.

As I sat here enjoying, and I hope profiting, by the fashion show, I began to feel that I was quite 99.99 per cent correct. I was indeed well satisfied with myself when I realized that I had chosen the proper colors for my tie, but I was somewhat chagrined when later I found that the tie had too many hues in it. As we get older we become more critical, and perhaps, if I should be invited to attend another meeting of this association a few years hence, my tie might not only be more correct in color, but it might also be all of the same hue, as recommended by the former speaker.

I am here to speak about art, especially as art applies to the study of Home Economics. Art and artificial come from the same root. Everything that man has not made is natural, but everything that man has made is artificial. In this sense, all that is artificial is art. But we know that such a statement is not entirely true. We know further that many artificial things are not artistic. We may say more correctly that everything that man does that is worth while may be elevated to the plane of art. Design is what gives art quality. Nature is not art, but from Nature we have secured our rules for art. It has been said, I think very appropriately, that design laws are divine laws.

The designer goes to nature for his inspiration, for his motives, for his laws of construction and of composition. This morning I tried to make clear the proposition that all art is united; I tried to stress the unity of art, and I endeavored to point out that there is no distinction between the arts called fine and the arts called industrial; that all art is both fine and industrial; that art possesses a spiritual, intellectual, fine quality, and that it also has a materialistic, scientific, industrial quality.

The kind of art that we can see, visual art, is produced through the transformation of materials. If the work has been beautifully done, if it has had a high purpose, the result is fine art, not in the

sense of its being distinct from industrial art, but rather in the sense that fine art is superior art.

Not long ago, in connection with the industrial art survey, I visited a pottery in one of the large centers of population in this country where chinaware is made. The designer at this pottery said to me, "I wish you would go to our show room and pick out for my benefit half a dozen of the patterns which you think are best from the art standpoint," and for this purpose I spent my noon hour in the show room, alone. There were displayed around the room possibly a hundred different patterns in the form of dinner plates. I picked out the six patterns that I liked best, and after lunch the designer came in and said, "Which did you like best?" When I told him which I preferred and he said, "You may be interested in knowing that none of these patterns have ever been made up and put out for the market."

"Why not?" said I.

"The people," he replied, "who decide which patterns shall be made up are the salesmen who go out on the road. The patterns which you like best are the ones which I like best. These are all patterns that I made, not expecting that they would be put out, but simply because I wanted to do the work as I thought it should be done. Sometime these patterns may be released and the chinaware put out. The salesmen think the public would not buy the ware, that it would not be appreciated."

What did this indicate? It might indicate that people in general do not have good taste, or it might be, of course, that my taste is not good. Apparently, however, my taste was not so bad, since it was identical to that of the designer who had produced the designs. It might be that the salesmen were at fault, that they did not correctly estimate the public taste. I think the reason why those designs were never put on the market was that the salesmen were unwilling to take a chance; they didn't want to put out something that might not sell. Personally, I think that those patterns would have sold. The designer thought they would sell, but the sales people simply didn't want to run the risk of not having the product accepted.

Nevertheless, we undoubtedly do produce here in the United States just as fine decorated chinaware as is produced abroad, although it is necessarily different. Our designers are more prone to limit the decoration than to spread it over the surface of the ware. I will say this, however, that most of the chinaware that we produce on this side, although the decoration may be good, it is applied abominably, so there is one outstanding fault, I think, with our American-made chinaware, and I don't know whether that applies to any extent in other industries or not. No matter how beautiful a decoration is, unless it is put on properly and carefully, the whole thing is spoiled.

That is why recently when I went to a department store to help my wife pick out a set of chinaware, we finally had to take a pattern

that was made in England, not because the English pattern was more beautiful, but rather because it had been carefully and correctly applied. We could have procured better chinaware "made in American," but at about twice the price of the foreign product.

In a recent issue of the New York Times I read an article by Mr. Forbes Watson, in which he discussed "The American Renaissance." There doubtless is at the present time a *renaissance* in art in America, and I think that this is indicated all about us, in the clothing that the people wear, in the buildings that they are beginning to erect and in the memorials that they place in parks. Even in the five-and-ten-cent-store products we have ample proof that there it at hand a revival in design in America. This revival has probably been brought about quite largely through the pioneer work of the art teachers, the home economics teachers and the industrial teachers of our public schools.

Mr. Watson, in his article, does not hold this opinion. On the contrary, he places great stress on the contribution which the art museum, through its educational program, is making to progress in the development of taste. He also has something to say about the private schools and what they are doing. He has nothing whatever to say about the public schools! So I sat down and dictated a letter to Mr. Watson—I don't know that he ever received it; I hope he did. I don't want to appear to hold it against him that he did not reply to my letter. He is a very busy man. But I did have the satisfaction of telling Mr. Watson that I thought he ought to know more about what was being done in the public schools. If we should make a survey of the work being done in the private schools, I am sure that we should find that in no way does it compare with the work of the public schools, and I think that some day perhaps, when Mr. Watson has made a more thorough study, he may realize this, and I hope that when he does, he will write another article for the New York Times or some other equally distinguished publication, in which he will give credit where credit is due.

It is up to as teachers of home economics to teach an appreciation of art, to teach appreciation of art so that our—I was going to say boys and girls—girls at any rate, will be able to enjoy life in fuller measure; so that they will be able to dress more appropriately and at the same time quite as attractively; so that they will be able to provide better homes, more artistic surroundings; so that they will have better taste.

Taste is something rather difficult to define. It has been said, I think by Mr. Frank Alva Parsons, that a difference of opinion regarding what is beautiful originally gave rise to taste. At any rate taste has always had to do with opinions as to what constitutes beauty and the reverse. Mr. Henry Turner Bailey has said that taste develops gradually through the making of choices with reference to some

ideal. If this is true, then we should set up ideals in order that by means of these ideals pupils may make comparisons and thereby develop their own artistic taste.

Fashion has to do with the desire for change, and so we have fashions, because if we didn't have them we should become dissatisfied with seeing the same old things over and over again. Fashion has been greatly exploited by the makers, not only of dress goods and costumes, but of most things. Fashions in automobiles now change periodically and one has to do a number of things to his old car every year if he wants to keep it looking at all like the latest model. Of course, fashion helps to sell goods, and in the long run fashions are probably desirable, provided that they can be kept within bounds. Those who saw the pictures shown by Mr. Pelikan this morning will realize that as we look back over the fashions in clothing, for example, we can see that in former times they have not been kept within bounds. We are, it would seem, becoming more and more sensible. One indication of this may be the present movement toward modernistic art. I am not a modernist, and I hope I am not an extremist in the other direction. I feel that modernistic art in its highest forms reflect very aptly the present tendencies in our civilization, and *art* has been defined by somebody as the reflection of what is going on in the world at the time when the things are produced. I think that it was Mr. Worth who said that "Fashion dates a garment." Fashion likewise dates pictures, statues, buildings and most other things.

Style is different from fashion. Style has to do with design, which means appropriateness. Beauty and style often have much in common. Beauty results from the satisfactory application of design principles to materials. A knowledge of design principles, then, is of the utmost importance to teachers of home economics, is of the utmost importance to all teachers, no matter what their field may be. Yet there is special force to this statement when made in respect to the teaching of any one of the arts.

Taste develops through the making of choices with reference to line and color. A fundamental knowledge of line is most essential. If we are to use design in home economics education we ought to be able to use line to good advantage, not only in being able to produce things which are good in line, but also in respect to being able to select things which are good in design. We ought to be able to get a great deal from line in pictures. The most outstanding costume designers of our time do not go back to the former period styles or to the fashion plates of former times for their inspiration, but rather to the portrait paintings by great artists, to the fine pictures of people wearing beautiful clothes, where I have no doubt that in many instances, the artist idealized his subjects, not only in respect to personality, but also in respect to the clothing that they wore. Home economics teachers therefore must be designers, in respect to their knowledge of and ability to use line.

Discrimination and taste in color is also important, and so the teacher of home economics should know a great deal about color and about color harmony. We may find inspiration for color in nature—in birds, in insects, in flowers. We may find fine color combinations also present in the mineral specimens to be found in the science museum. We can find fine color combinations in paintings by the artists who have best understood color. We should do all that we can continually to develop our color sense. Home economics teachers should know a great deal more than most of them do about color, for they are all designers. Let them use every opportunity that comes to hand for seeing colors, for comparing colors, for choosing colors. It is often better to have the pupils work with large pieces of colored cloth, for example, than it is to have them work with water color paints and crayons. It is often better to put on a style show or something similar to it than to have the pupils draw. If art is visual, if colors can be seen, they ought to be seen, compared, combined, discussed. Further, the pupils should be given aesthetic problems to solve at home.

Fitness to purpose is an important element which we must also consider continually in the development of taste. There was a time when clothing was used for utilitarian purposes. Today perhaps clothing is used more for decorative purposes than formerly, but for whatever purpose it is used, it should be appropriate. There was a time when warm clothing was worn in winter, and cool clothing, in summer. Today this does not always apply. It is true still, of course, that certain costumes are worn in the evening and other costumes in the morning. In teaching the appreciation of art in home economics much emphasis should be placed on appropriateness, fitness to purpose, harmony. Again, teachers of home economics are teachers of design.

Structure is important, structure in the fit of a garment, and structure in its decoration. The primitive savage, when he made a moccasin, decorated the seam with stitches. That is just where the decoration belonged. In modern times we can utilize that same principle and emphasize structure by decoration. If structure is important in nature it is equally important in art, for we get our knowledge of art structure from nature. Let us develop a feeling for good construction and for appropriate decoration which shall always be structural, and therefore beautiful.

Texture is likewise important. Although I have said more about costumes and clothing, we should apply the principles of design in all fields, in furniture, in silverware, in ceramics, in jewelry, in lighting fixtures, in wall paper and in hangings. Velvet has a different texture from silk. Cotton has a still different texture. Fur has another texture; various kinds of fur have textures which vary in a number of particulars. So texture should be considered as an element quite distinct from color.

One way to develop sensitiveness to color, line, structure, texture, and to all the other elements of design is to visit the museums and the department stores, which have also sometimes been called museums of a practical sort; to visit museums not alone for the sake of studying what is on display in the collections. It is a well known fact that the people who are most interested in art are the people who frequent the art museums, and that these people have rather good taste. An occasional visit to the museum with the idea of observing the people who go to the museum is sometimes just as profitable as to visit the museum for the sake of studying the collections. Likewise, an occasional visit to the theater for the sake of seeing how the people dress is profitable. I call attention to this because many times people go to the theater and go to the museum and go elsewhere and meet other people and come home with no recollection at all of what they wore. Perhaps that isn't so true of the teachers of home economics, but I know that unless I assign myself a problem in advance, I am most likely to come away without noticing these things at all.

I would say the same for the arrangement of all things, that is, the combining of things, and that we should give pupils in school the experience of choosing and of combining things, in so far as this is possible. If it isn't possible to use the things themselves, then we can at least have pictures of the things, and the stereopticon.

Good workmanship is also important, as was pointed out in connection with the chinaware decoration; no matter how good the design is, unless it is put on right, the result is not satisfactory.

Art education is for the development of taste. That is an important objective. The influence of art training in our public schools is noticeable already in the improved taste that is in evidence all about us. The time has come when merchandise is accepted or rejected solely on aesthetic grounds, quite regardless of mere intrinsic worth. I was told recently in the city where I come from that within the last two weeks, three sewing machine agencies have been reopened. The reason why these agencies have been reopened is that people are beginning to go back to the use of the sewing machine in the home in order that they may express themselves, and at the same time get the kind of clothing to wear that they cannot buy in the shops except at a prohibitive cost.

People are expressing themselves creatively today through the intelligent choices that they make in purchasing things in the department stores and elsewhere. This condition has been brought about by a number of forces, including the department store, the private school, the educational classes in the art museums; by advertising, and by periodicals devoted to the home interests, but I think that the greatest influence has without doubt been that exerted by teachers of the arts in the public schools. They have indeed demonstrated that art education is for the development of taste.

Aspects of Color

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THE objects of this paper are two-fold: First to suggest fundamental reasons for color preferences and secondly, the place occupied by public school design with reference to these reasons, and suggestions leading towards advancement in color appreciation.

To a group of people, color has many diversified meanings, so varied indeed that attempts clearly to classify them would seem impossible. The classification I am to advance is, I believe, more definite in many of its phases; an elaboration of a series of experiments by Professor Edward Bullough of the University of Cambridge entitled "Preceptive Problems in the Aesthetic Appreciation of Single Colors." Complete agreement is not to be hoped for, nevertheless I trust you will find the material offered as helpful in the appreciation of color.

I have designed this apparatus and christened it the Chromascope; a useful device for illustrating color mixtures. Expense of transportation caused me to omit bringing the rheostat which would have increased its flexibility for rendering value gradations. Kindly bear with me by considering the colors reduced in intensity wherever the occasion seems to demand such adjustment.

Returning to the experiments of Professor Bullough, let me say that thirty-five colors were shown to people of varied interests, under test conditions in the Psychological Laboratories of Cambridge. These people were asked to give introspective single-judgments on a series of colors; "what special features appealed to them and why." An attempt was made to "find out what was happening in their minds in reference to each particular color."

The records show four distinct reactions to color, each group possessing characteristics readily to be identified and classified. For lack of a more comprehensive title these groups will be considered as representing varied *Aspects of Color.*

Let us understand that very few individuals conformed in every respect to the limitations of a single group; pure types were the exception, while fusion proved to be the rule.

The Objective Aspect

To clarify explanations, for a moment let us consider the replies of a certain individual of the pure or unfused type. His criticisms of the colored papers ran as follows: Some were sickly, some well

saturated, bright, crude, not enough pigment, muddy, indefinite, pronounced, heavy, clear. As an example he would consider

(Demonstration by colored lights.)

Y. YO. O. OY.——————————Clear
Neutralized OY. Dulled G. B.——Muddy
B. GB. —————————— Diaphanous

Let audience think of what reaction they receive.

All of these comments, attempts at appreciation, deal uniformly with such physical peculiarities of colors as its chroma, brightness and delicacy; to its purity or impurity. How is he thinking of color? He is dealing objectively with it and proves to belong to the *Objective Type.*

Criteria for the Objective Aspect indicate a strongly opinionated stand as to color, based mainly upon its physical composition and whether or not it is mixed to conform to a rather arbitrary standard of good color. The subject showed a marked desire to analyze mixed colors into their component parts; indications showing an intellectual and mental rather than the true emotional appreciation. Scientific students frequently are to be found within the limits of the Objective Group. An objective judgment may well be compared to a criticism on the technic of a surgical operation or the craftsmanship of a chair; on the whole, "rather cool and dispassionate and emotional" but intellectual and positive.

The Associative Aspect

Other replies from the records of color impression were based on *color associations.* The colored papers recalled various natural objects, artifacts or accidental associations. The sun, sunshine, moon, sky under different atmospheric conditions, sea, water, vegetation, garden, flowers, lamps, railway signals, musical notes, skating; all evidenced the reactions of the Associative Aspect Group.

(Chromascope demonstration.)

G. + OY. + B.——————————Sunrise
G. YG. OY. Y———Sunlight and Green Fields
R. ——————————Fire-Railway Signals

The suggestive or associative value of color is one of its most marked characteristics. While color with its low cognitive value gives little help in the recognition of objects dependent for perception upon light and shade and movement, it does, by its changing fugitive nature, stimulate the imagination into numerous differing channels and nature aids in the mental transition from one object to the next.

Unhappy or frightful associations like blood or fire will spoil whatever pleasure one may have in a color, while pleasant memories reinforce a pleasant reaction.

The Physiological Aspect

The third group reacted to color by physical stimulative or temperature effects, feeling soothed, depressed or stimulated in accord with the color presented. This phase of color appreciation Mr. Bullough terms the Physiological Aspect.

(Chromascope demonstration.)

R. OR. O. OY. Y. ——— Warm
B. BP. P. ——————— Depressing
B. GB. G. ——————————— Cold

As the Physiological group represent one of the most normal of our color reactions, naturally a large number of subjects were to be found within this classification.

The Character Aspect

The last group, that of the Character Aspect people, regarded color as depicting temperament or possessing character and proves to be one of the most interesting and varied of the groups with fewer pure types registering within its criteria.

(Chromascope demonstration.)

OR. Y. OY. B. ——— Spontaneous
Weak B. + Weak YG. ——— Insipid
OY. ——————————— Stealthy

Differing from the coldly critical attitude of the objective type, an individual of this character group is particularly sympathetic toward color and marks his appreciation with voluble and almost boundless enthusiasm. Typical replies mark color as mild, innocent, spontaneous, stealthy, underhand, impressive in its strength, fearless, trustful, bourgeous, jovial soft, insipid or stubborn.

While based on the records of a small group of people, experimental data shows a distinct tendency towards agreement as to the character temperament or mood assigned to most colors of the spectrum—at a later point, I will illustrate this element.

With the four aspects before us for consideration, how do they rank regarding the degree of real aesthetic appreciation in each? Mr. Bullough claims an individual in the Physiological Group showing no fusion with other groups to be lowest in aesthetic standards of appreciation. One must arrive at his conclusion by recalling the distinctions between the agreeable and the beautiful. The agreeable may stimulate the senses but the beautiful touches the emotions through the senses. A piece of candy may be agreeable but is it beautiful? People of the Physiological Group who feel temperature stimuli from color and to the exclusion of the higher and emotional forms of aesthetic feeling get as much emotional thrill from color as they would from a comfortable and warm room or hot coffee on a cold day.

As a commentary on this, how many texts on color preach the doctrine of the warm and cold color balance with its sensitory appeal!

Practically on par with the Physiological Group comes the non-fused members of the Associative Aspects. With these people "pleasantness lies more in the sphere of *psychical agreeableness,* than in physical well-being; it is a question of pleasant memories; pleasant emotional states induced by color impressions." These color impressions are marginal and there is little sign of real affective or aesthetic appreciation.

The subjects of the Objective Group have little feeling for the color itself, they theorize on color mixing and intellectually constructed color harmonies. "It is a theoretical more than a practical attitude and shows its abstractness in the absence of personal sympathy." Could you hear one of them say that she "just loves a color?" A color means much less to this type than to the associative or physiological groups. "The Objective Group forms the most critical, the least appreciative, but by no means the most sensitive."

Popular prejudice inclines toward this objective attitude, particularly in the Fine Arts. As training for shop girls, house painters and others in the field of art industries, objectivity may be excellent training. Our scales, analogies and contrasts, our balance problems are good for color mixing and matching as far as they go, but through them we are not leading towards intellectual rather than to emotional bases for color appreciation, standardizing, for example, the art of dress along stereotyped objective lines?

It is only when we fuse the mood or temperament of a color into the pigment that the "maximum of emotional potency is obtained." This is secured by the blended associations found in the Character Aspect. "Neither the temperament nor the color exists independently in the mind of the subject, but the perception of the color implies a consciousness of its mood. Its freedom from purely personal factors, from accidental memories and irrational associations, its essential emotional tone stamps the Character Aspect as aesthetic appreciation par excellence."

Few of us have the ability to react to the Character criteria alone. *How may we be taught to approach the highest degree of color appreciation?* May I be pardoned for a technical quotation from Mr. Bullough. "A person placed before a color that merely suggested at first a purely subjective content, (blue-purple and winter) might, while keeping the color attentively in focus of the sub-consciousness, detach the emotional tone of the content from its pristine object; and then fusing the emotional memory with the present color impression, invest it with a suffused atmosphere, which, in spite of its associative origin, would appear again as the immediate emotional reaction to the color."

To illustrate this point, let us flood the setting of the Chromascope with green blues and blues

ADD HILL AND TREES———B. BP. P.

A member of the Associative Group would recall some similar scene of dreary winters; one of Physiological tendencies would feel a chilling atmosphere with a suggestion of impending calamity by fixating this color, the sub-consciousness detaches an emotional tone from this setting, which, fusing with the color-impression gives a distinctly forboding feeling tone, temperament, mood or character to the color impression, illustrating the transition or fusion of Associative or Physiological tendencies with the Character Group of reactions, the highest type of color appreciation.

Without comment from the speaker may I ask the audience to observe the following colors, form Associations, or Physiological reactions fusing these into moods or temperaments into the Character Aspects. Some may be able to interpret directly the desired mood.

(Demonstration)

With this brief demonstration of fusion of subjective impressions towards and into a higher sphere comprehended of aesthetics, we are ready to study the moods of a few of the many colors of the many determined by the Bullough experiments. The strongest color difference exists between the reds and blues. Red is affectionate, kindly sympathetic, with an open and frank advance. Red expresses strong energetic personality which may become "gushing."

Blue may be described as a person "difficult to understand." While not exactly repelling, it is cool and reserved, distant, contemplative and reflecting, forecasting more thoughtfulness with greater depth than red seems to offer.

Yellow strikes a note of happiness and cheer, of a disposition a bit "fidgety" but full of fun. "Deepening into gold, it retains too much joyous radiance to be really majestic. It may be splendid, brilliant, but its splendor is after all namely on its surface and a faint suspicion of shallowness is apt to linger in the mind. Fearlessness seems connected with high chroma, daintiness with tints.

Time will not permit a complete analysis of color character. A critic might claim color temperament to be merely a form of association. This is incorrect. As I have pointed out, "fused associations thoroughly incorporated within the sub-consciousness were responsible for the character aspects, with the observer fully able to distinguish between direct associations and temperamental opinions; translating physical qualities of warmth, heaviness and strength into psychical features of color."

My closing demonstration is one intimately connected with the home, introducing what I will term "Character Compensations." This term may well be explained by reference to complementary con-

trasts. In color teaching, emphasis has often been placed on the fact that juxtaposed complementaries accentuate the brilliancy of each while mixed pairs tend to neutralize each other. On this objective fact inherited from the physicists is based the popular color preference for pairs shown by different tests, (one complementary supplying what the other lacks). Psychologists are now pointing out that mood compensations are the real basis of aesthetic appreciation of complementaries, a purely emotional explanation which seems completely logical.

If mood or character compensations form a basis of appreciation of complex colors, would it not be possible to so psycho-analyze a person in terms of color, clothe her or furnish her home in such a manner as to either accentuate, diminish or support her desirable or undesirable traits of character? One may use our customary objectivized color scales, for the externally harmonious factors of complexion, hair and so on, but use them in reference to her inner temperament or disposition.

Let us review our objective arrangement around which so much teaching is based

(Demonstration)

R. ——————————Dominant
OR. O. OY. ——————————Analogous
B. BG. G. + O. ——Cold Complementary
O. OY. Y. + P.——Warm Complementary

First Demonstration

These two spots of color (pink and blue) represent our subject, the lady of the house; carefully conducted psycho-analysis reveals this lady as possessing the following character; pure, innocent, mild but weak. Unsaturated blue is the color synonym for these traits. Furthermore she has a cheerful but uninteresting disposition, represented by unsaturated red (pink). Surely one would not attempt to accentuate all phases of this disposition but rather to diminish some of them, using compensating colors which would create an atmosphere of strength and dignity in her dress and environment at the same time letting her retain whatever pleasing personality she may possess. Allowing for marked reductions of chroma she might well surround herself with

(Demonstration)

in which the objectionable character colors have been diminished but with desirable color slightly accentuated, and a strong emotional color atmosphere, depicting dignity, used to saturate the scheme.

This bit of color (brown) is like Maude Adam's little brown hen, a quiet, self-effacing little woman in need of color accentuating her sub-conscious traits of character:

(Demonstration)

(Blue) This lady is slightly diffident, serious and dignified with a touch of humor:

(Demonstration)

(Red and Yellow) This is a readily recognized type of woman. From a distance one may feel her approach. Violent, shallow and conceited, self-confident, aggressive; a masculine woman. What she likes to wear is

(Demonstration of high chroma.)

Compensating color while failing to obliterate her traits may at least modify them to some extent.

(Demonstration of repressive colors.)

This completes my demonstrations. The insane are affected emotionally by color; are we less sensitive than these unfortunates? Modern stage lighting utilizes emotional effects; are we slower to realize our opportunities? May we not carry our objective teaching to the subjective field and through color exert a greater influence upon the lives of our pupils, leading them to see fuller significance in the fields of color?

Annual Dinner and Dance

The Annual Dinner and Dance took on a new form this year. The banquet hall and adjoining balcony were decorated to give the appearance of the deck and dining room of a ship. Instead of the conventional dinner tickets, steamship tickets 18 inches long, presumably for the "Friendship Wesarta"—Wes (tern) Art A (ssociation)—were sold and a portion of each was torn off or stamped as passengers went on deck past the purser, medical inspectors, quarantine officers, etc. During the dinner customs officials disclosed the fact that certain much respected members had slipped on board, certain articles, without paying duty and when the disclosure was made, much amusement was afforded the audience.

The feature entertainment was supplied by students and faculty from Arsenal Technical High School, Indianapolis. Unique place cards and table decorations were made by the Vocational and Art classes of this school. After the customary intermission to permit the room to be cleared, the 400 persons present spent several enjoyable hours in dancing.

It was a "speechless banquet" and one which will long be remembered by those present.

Exhibits

THE exhibits, always an inspiring part of the convention, were housed in the United States Armory. More than 11,000 square feet of floor space were used. Booths and tables constructed and installed by the grade school Manual Training Department of Indianapolis were arranged so that the Material and Equipment exhibits were in the center of the exhibition room and the school booths were grouped around them or against the walls.

The school exhibits were arranged according to subjects. City units were broken up and each kind of work exhibited with a like kind from other cities. This made possible an easy comparison of work.

The cities sending school exhibits were as follows:

PUBLIC SCHOOLS

Akron, Ohio
Anderson, Indiana
Auburn, Indiana
Cincinnati, Ohio
Decatur, Indiana
Des Moines, Iowa
Fort Wayne, Indiana
Frankfort, Indiana
Hammond, Indiana
Highland Park, Detroit, Mich.
Huntington, Indiana
Indianola, Iowa
Indianapolis Grade Schools
Indianapolis High Schools
Kalamazoo, Michigan
Kenosha, Wisconsin
Kirksville, Missouri
Lafayette, Indiana
Lansing, Michigan
Lebanon, Indiana
Madison, Wisconsin
Marion, Indiana
Marion County, Washington Township Schools
Memphis, Tennessee
Milwaukee, Wisconsin
Oak Park, Illinois
Racine, Wisconsin
Richmond, Indiana
Rockford, Illinois
Shelbyville, Indiana
South Bend, Indiana
St. Louis, Missouri

PRIVATE SCHOOL

Orchard School.....Indianapolis, Indiana

ART SCHOOLS AND COLLEGES

Ball Teachers' College.....Muncie, Indiana
Bradley Polytechnic Institute.....Peoria, Illinois
Columbus Museum and Art School.....Columbus, Ohio
Grand Central School of Art.....New York City, New York
Iowa State College.....Ames, Iowa
John Herron Art Institute.....Indianapolis, Indiana
Layton School of Art.....Milwaukee, Wisconsin
Madison Vocational Schools.....Madison, Wisconsin

Miami University.....Oxford, Ohio
Missouri State College.....Kirksville, Missouri
Northwestern University.....Evanston, Illinois
Teachers' College.....Indianapolis, Indiana
Teachers' College.....Kent, Ohio
Teachers' College.....Pittsburgh, Kansas
University of Kansas.....Lawrence, Kansas
University of Minnesota.....Minneapolis, Minnesota

ART WORK CHOSEN BY WESTERN ARTS COMMITTEE FOR PRAGUE EXHIBIT

Ames, Iowa	Iowa State College,	11 mounts
Cincinnati, Ohio	Public Schools,	10 mounts
Fort Wayne, Indiana	Public Schools,	1 mount
Indianapolis, Indiana	Elementary Schools,	5 mounts
Indianapolis, Indiana	High Schools,	2 mounts
Kent, Ohio	Teachers' College,	4 mounts
Lawrence, Kansas	Kansas University,	9 mounts
Marion County, Indiana	Washington Township,	5 mounts
Memphis, Tennessee	Public Schools,	2 mounts
Milwaukee, Wisconsin	Public Schools,	3 mounts
Racine, Wisconsin	Public Schools,	3 mounts
St. Louis, Missouri	Public Schools,	6 mounts

MATERIAL AND EQUIPMENT FIRMS MAKING EXHIBITS

Abbott Educational Co.
American Art Clay Co.
American Crayon Co.
American Type Founders Co.
The Art Extension Society
Barnhart Bros. & Spindler
Binney & Smith Co.
Brown-Robertson Co., Inc.
Bruce Publishing Co.
Devoe & Reynolds Co., Inc.
DeWalt Products Co.
The Dudley Lock Corp.
Favor, Ruhl & Co.
Eberhard-Faber
Esterbrook Steel Pen Mfg. Co.
Henry Disston & Sons, Inc.
Joseph Dixon Crucible Co.
The Manual Arts Press
Mentzer, Bush & Co.
Miss Niblack
North Bros. Mfg. Co.
Oliver Machinery Co.
F. A. Owen Publishing Co.
Parks Ball Bearing Machine Co.
Pelican Works, Gunther Wagner
Porter-Cable Machine Co.
Frederick Post Co.
Practical Drawing Co.
The Prang Co.
School Arts Magazine
E. T. Shima
Stanley Rule and Level Plant
Thomas Charles Co.
University Prints
Waldcraft Co.

Correspondence reaching the Secretary's office after the convention was over indicates that the exhibits were profitable both to the commercial interests and the teaching force.

According to a custom established a few years ago, cards, which could be punched at each exhibitor's booth, were distributed at the Registration Desk. Each exhibitor contributed a worthwhile prize and just prior to the business meeting on Saturday, a drawing was held and the prizes were awarded. If the owner of the card drawn was not present, a second drawing was made. Prizes would have been received by the following if they had been present at the business meeting, as their cards were lucky cards:

Isabelle Geiger	Mamie Engel
Agnes Crawford	Vera V. Wilson
Grace M. Kiess	Kate M. Comins
Wilmer B. Flory	Mrs. C. S. Pendleton
Dorothy A. Jones	W. B. Hill
Dorothy E. Slabaugh	Retta Yeatman

Those benefiting by the drawing and the firms donating the prizes were as follows:

Firms Offering Prizes and Prize Winners

1. Joseph Dixon Crucible Co.
   Caroline C. Wilhelm, 209 I St., Laporte, Ind.
2. Art Extension Society
   H. Whitaker, 5116 Norway Dr., Indianapolis, Ind.
3. Parks Ball Bearing Machine Co.
   M. J. Sherwood, Dir. Man. Arts, Kalamazoo, Mich.
4. Mentzer, Bush & Co.
   Dorothy Hopkins, 529 Madison St., Gary, Ind.
5. Devoe & Reynolds Co.
   Lyndall Fox, 203 E. High St., Anna, Ill.
6. American Type Founders Co.
   J. Lyle Johnson, 616 N. Grant St., Indianapolis, Ind.
7. School Arts Magazine
   George C. Donson, Washington, Pa.
8. Pelican Works Gunther Wagner
   Ella Herrman, 122 Diamond St., Jacksonville, Ill.
9. The Manual Arts Press
   Etta Harlan, 4925 Victor St., Dallas, Texas.
10. Thomas Charles Company
    Lou K. Weber, 2136 N. Malvren St., Peoria, Ill.
11. Esterbrook Pen Manufacturing Company
    Albert F. Siepert, 405 Laura St., Peoria, Ill.
12. DeWalt Products Company
    Laura Hales, 409 N. Oak Park Ave., Oak Park, Ill.
13. Bruce Publishing Company
    Amon Swope, Purdue University, Lafayette, Ind.
14. F. A. Owen Publishing Company
    Catharine Martin, 104 E. Rugg St., Decatur, Ind.

15. Porter Cable Machine Company
    Jennie Robinson, 1653 Pearl Ave., Wichita Falls, Texas.
16. The Dudley Lock Corporation
    H. M. Cantrall, Springfield, Ill.
17. American Crayon Company
    H. H. Krickenbergerl, Central St., Greenville, Ohio
18. Henry Disston & Sons
    Miss Clara Zehner, 842 R. I. St., Gary, Ind.
19. North Bros. Manufacturing Company
    Lena W. Price, S. F. Teachers College, Durant, Okla.
20. The Prang Company
    Olga Schubkege, Lyndora Hotel, Hammond, Ind.
21. Barnhart Bros. & Spindler
    (1) Katherine M. Lester, Peoria, Ill.
    (2) Mrs. May Evans Hallock, St. Louis, Mo.
22. American Art Clay Company
    Mildred Kaye, Junior High School, South Bend, Ind.
23. Practical Drawing Company
    Paul W. Covert, 2006 Ruckle St., Indianapolis.
24. Brown-Robertson Company
    Ernest J. Hooper, 2815 Broadway, Indianapolis.
25. Waldcraft Company
    Katharine H. Law, 517 McCreery St., Flint, Mich.
26. Ebehard-Faber
    Mrs. Harry E. Wood, 5215 College Ave., Indianapolis.
27. Oliver Machinery Company
    Anna E. Mead, 1162 W. Macon St., Decatur, Ill.
28. Favor, Ruhl & Company
    Mae Gray, High School, University City, Mo.
29. Binney & Smith
    Ada E. Kennedy, Art Supervisor, Mishawaka, Ind.
30. Abbott Education Company
    Nettie Innis, 1200 E. Rich St., Columbus, Ohio.
31. Frederick Post Company
    J. J. Maxwell, R. 6, Box 131, Indianapolis.
32. Stanley, Rule & Level Plant
    Evalyn G. James, Jefferson H. S., Lafayette, Ind.
33. University Prints
    Adelaide Michel, 406 College, Peoria, Ill.

Report of Auditor

Year Ending September 1, 1928

As it was impossible for me to audit the books myself, I had them examined by a professional, and so it is through Mr. H. G. Shellow's work that I give the following report.

I have examined the books and vouchers, bills and other papers relating to the accounting and financial side of the Association and find everything in good order.

The minor error on the books of 90 cents was explained as follows: According to the bank deposits as shown on the Association's pass books, the amount deposited was $7,437.40, instead of the $7,433.33 which was reported on the books. The bank credits as shown by the vouchers as well as by the cancelled checks, were $5,509.84 instead of the $5,504.87 which amount was reported on the books. This results in the correct balance of cash on hand of $1,927.56 and thus corrects the supposed error of 90 cents, the real error on the books being $4.07 and $4.97 on the debit and credit sides respectively.

With the exception of the above minor discrepancy, everything is correct.

CHARLOTTE E. PARTRIDGE, *Auditor.*

ADVERTISERS

American Crayon Company
Berkshire Summer School of Art
Binney & Smith Company
Bureau of University Travel
Devoe & Reynolds Company, Inc.
Joseph Dixon Crucible Company
Eberhard Faber Company
Emelie Bernat & Sons
Esterbrook Pen Company
Favor, Ruhl & Company
Grand Central School of Art
Keramic Studio Publishing Company
Layton School of Art
McMillian Company
Manual Arts Press
Metal Crafts Supply Company
New York School of Design
New York School of Fine and Applied Art
Pelican Works
Practical Drawing Company
School Arts Magazine
Specialists Education Bureau
Stanley Rule & Level Company
Louis Stoughton Drake, Inc.
Talens & Sons, Inc.
University Prints
Ward Belmont College
Washburn Shop
F. Weber & Company

Business Session

FRIDAY MORNING BUSINESS SESSION

May 5, 1928

PRESIDENT DUTCH: We will now hear the report of the Secretary.

SECRETARY WOOD: This will have to be a preliminary report due to the fact that I am not triplets. As you may have seen by the early bulletin, the President appointed me as a member of the Program Committee, and then later on I received word that I was to be Secretary-Treasurer. Having charge also of the general arrangements here has made it a three-ring circus. I cannot give a good report, but under our new organization, established a few years ago, much of the business of the general meeting as we had it originally has been transferred to the Council meeting. All that I can report is that the Council has been meeting according to schedule, that the proper secretarial minutes have been prepared, and in some cases mimeographed copies distributed to members of the Council and corrections made. That phase of the Secretary's work has been performed.

In these Council meetings the reports of the committees which should have been made there have come in. The tentative financial report of the Program Committee was received at that time. The Secretary-Treasurer was to have a written Treasurer's report, but since, according to the constitution, the fiscal year ends September first, it is absolutely impossible, of course, to give a Secretary or Treasurer's report in detail at this time.

In passing I can say this, in a general way for your information: that the finances of the organization are in a fairly good state, I think a little better than they were last year, showing that we are growing. By a new system of record-keeping which the Council has approved, I think we can eliminate many of the mistakes in our membership records; mistakes which have caused some dissatisfaction on the part of members who have thought that they were paid up or whom the Secretary thought were paid up. In every case it has been the policy this year to give the benefit of the doubt to the members, and then to establish a set of records which will be a better proof of our activities.

Our registration at this meeting was 556 members, and not all persons coming into the city registered. We have seen many people here who had paid their dues who did not know it was necessary or desirable to register at the registration desk.

Over a thousand dollars has been collected in dues up to date. The returns from the sale of exhibit space at the Armory have been

very pleasing, and we will have a balance a little better than the budget we set up last year which was $1,900. As far as we know we think we will have about $2,300 or $2,400 which will go into the coffers of the organization as proceeds from commercial exhibits.

This year at the suggestion of one of the commercial men we established the policy of dropping the word "commercial." Instead of saying "school exhibits" or "commercial exhibits," they are all "educational." We have gotten much good from these exhibits, and hereafter they are not to be known as material and equipment and school exhibits, but as educational exhibits.

There is a little confusion, I should say, in regard to the duties of the various members of the Council and officers. The Council has gone on record to do two things this year: one, that the Secretary should prepare some outlines of duties for all of the members of various committees, local and general, so that one being appointed to a committee will have something to guide him along the way, a guide-post to lead him into the direct route. A new officer coming in, who hasn't been actively connected with the inner workings of the organization, does not always know just what to do.

I think that is as much as I can give in an informal way at this time. I have made an effort this year to have the bulletins out on time with the exception of the first issue. All the other three bulletins have been off the press or distributed on the date set forth in the bulletin, and at least until next September, when my office expires, they will come out on time, if it is humanly possible.

PRESIDENT DUTCH: Mr. Bedell, have you a report for the Program Committee?

SECRETARY WOOD: Mr. Bedell has made, according to the constitution and by-laws, a tentative financial report, and I think something should be said about it. A certain allowance was set up to cover program expense. Mr. Bedell has managed to give us an excellent program. I am not saying that for myself; I haven't heard any of it, but I have heard that the people have liked the program and arrangements, and he has kept well within the budget. He has made his report, and you have been enjoying it.

PRESIDENT DUTCH: The Exhibits Committee we have had this year have been at work and are now demolishing the exhibits. The Editorial Board seems to have passed out of existence and I would like to see it back in.

SECRETARY WOOD: Since Mr. Gossett isn't here, I would like to say one thing about this Exhibit Committee. Some of you may have heard it. It was impossible to get into that exhibit hall until Tuesday morning at about 8 o'clock as there was a prize fight in the Armory until midnight the night before, and two thousand seats and bleachers had to be removed before we could take possession.

Mr. Gossett, the chairman, and Miss Marie Stewart and Mr. Simpson began their work early Tuesday morning, and when I arrived at 8 o'clock the next morning, fearful to look in because I had said I wanted this to be a memorable occasion when no hammer should be heard after the opening of the exhibits at 9 o'clock, every booth was erected, covered with paper on certain parts, painted and the exhibits arranged and aisles swept out, one hour before the official opening of the convention.

PRESIDENT DUTCH: Now, we will have the report of the Chairman of the Council, Mr. Vogel.

MR. VOGEL: Mr. Chairman and Fellow Members, Miss Hayden was the logical Chairman of the Council this year, but at the last moment being severely afflicted with rheumatic fever, she telegraphed me asking me to serve in her stead, I being the next senior member of the Council. Not being aware that I was to make this report, (I was just informed a few moments before I came over here that I had to do that,) I can give but a tentative report. Our Secretary has given you quite a complete report of the actions of the Council this week. Suffice it to say that just as you have been able to infer from the splendid report he has been making of the works of the committees and officers that Council has had a very arduous task during the week of the convention, and we have been working off and on, morning, noon and night. The Council has been very faithful.

I can repeat what the Secretary has indicated. The finances are in a favorable condition, the membership is growing, but we must not depend upon the Secretary to do all the work of the organization. We have to function, as Professor Slutz said, function individually for the growth and development of the art work and industrial activities as well as all these other activities represented by our organization throughout our country. We have to build up this organization, not by one man, but by every element in the organization working. The commercial people have stated that they have realized the necessity of their co-operating in that regard; although they have been doing much along those lines, they are going to plan a wider circularization, a campaign of advertising to help you and you are expected to do something of the same sort to help them. It is to be a co-operative proposition.

I congratulate you on having had this year a very efficient corps of officers who have supported the Council and kept the Council informed constantly of the activities going on during the year, and Miss Hayden has by correspondence had a number of Council meetings during the year.

That is about all I can report today, and the Bulletin will give a further report.

PRESIDENT DUTCH: Reports of Special Committees. Under that head we will have the report of the Resolutions Committee.

MR. CHRISTY: Mr. Chairman and Members: We have just two resolutions to offer this morning.

First: "WHEREAS, Mr. Walter Scott Perry, after a long period of outstanding success as Director of Fine Arts in Pratt Institute is severing his official connection with this institution; be it

"RESOLVED, that the Western Arts Association give public expression to its appreciation of his great work for art education throughout the length and breadth of our nation and wish him great success and happiness in his further achievements."

The next resolution: "WHEREAS, the city of Indianapolis, through its public school system, its Convention Bureau and other civic organizations, has united its forces in providing a delightful setting for the Thirty-fourth annual meeting of the Western Arts Association, and

"WHEREAS, the evidence of their activity is apparent at every turn, not only for the esthetic and technical development, but also the social enrichment of our profession through personal contacts and renewed acquaintances;

"WHEREAS, the local committees, together with the officers of the Association have shown initiative in developing a well-rounded program of interest and value to the several groups which constitute our organization, therefore be it

"RESOLVED, that we record our appreciation to all who have contributed so generously to the comfort, pleasure and professional growth of our members."

Signed by the members of the Committee: May Robinson, Mary Frances Murdock, Elmer W. Christy.

. . . It was voted, on motion of Mr. Vogel, duly seconded, that the report of the Resolutions Committee be adopted . . .

PRESIDENT DUTCH: Under the item of Special Committees, I assume that we have had our report from the Federated Council, the splendid piece of work presented by Miss Mary C. Scovel at our general meeting on Thursday morning.

Are there any other special committees to report?

We now come to the sixth item. I would like to think of the man elected to the office of Vice-President as a co-operative president, and I am glad you people honored him the other day by making him a chairman of your Nominating Committee. I now ask Mr. Bedell to present the report of the Nominating Committee. (President Dutch read the part from the Constitution and By-Laws governing nominations.)

MR. BEDELL: The Nominating Committee as elected consisted of Mr. James and Miss Stewart. Mr. James was unexpectedly called

out of the city after the first meeting of this committee, and in his place, Miss May Robinson was appointed to act, upon the confirmation of the President.

Therefore, the Nominating Committee after a most careful study of the field and of the duties as we understood them, felt the responsibility of the task that has been placed upon them. Our nominations are the unanimous selection of our committee. We considered a large number of names and the selection that we have made does not mean there were not many others eligible for the office; does not mean that there are not many others who would have given good service, and I trust in future years we will see the honor bestowed upon them in succession.

The outstanding person of this convention as we saw it, is the woman whom this committee will present as the nominee for President. I refer to Mary C. Scovel.

The constitution, as I was informed by the President, states that the Nominating Committee must make some statement concerning the service of these people when the nominations are presented. I am sure that I will not be unduly criticized for not following out explicitly the demand of the constitution because there isn't anything that this Committee could say that would add one thing to your knowledge of Mary C. Scovel.

For Vice-President, we went over the field quite carefully. Some members of this committee and others that we talked to remembered services that he had given in the past. This man has been a regular attendant at the convention. He has served on committees where work was necessary, and I think that the nomination of this man following the speech we heard this morning of Dr. Slutz, recommends him. Therefore, this committee has placed before you J. H. McCloskey, Director of Technical Work in Lakewood, Ohio.

It is a time-honored custom that the Council shall be made up of experienced people. There is nothing in the constitution as I understand it, and interpret it, which necessitates or even infers that there shall be any succession of officers. In fact, there is a very strong custom to the contrary. Just our common sense, I am sure, will let us understand why it is entirely desirable that this Council shall be made up of the most carefully selected group. What person could be more carefully selected than the man who has served as the President and who has had that experience? Therefore, this Committee would recommend and nominate the present President, as a member of the Council.

I am sure that we have felt the influence of a certain group of art people in the program this year. The lecture of Miss Hansen, of the Iowa State College, has perhaps called our attention to the work, the contribution made by the Home Economics Group. Our minds immediately turned to the services that such a person might

render to this Association and because of her services this year as Chairman of the Home Economics Round Table, this Committee presents the name of Miss Julia Grady, as Auditor of the Association.

. . . It was voted, on motion by Miss Weyl, seconded by Miss Cantrall, that the report of the Nominating Committee be accepted, and that the Secretary be instructed to cast the ballot of the entire Association for the nominees. The Secretary cast the ballot for Miss Scovel as President, Mr. McCloskey as Vice-President, Mr. Dutch as member of the Council, Miss Grady as Auditor, and they were declared elected. . . .

. . . There was no unfinished business, and Mr. Vogel was asked to report on the mater of invitations for next convention city. . . .

MR. VOGEL: We have had quite a number of invitations from various cities to meet with them next year. Now, the acceptance of the invitations usually depends upon the sources from which they come. We expect first of all the educational bodies, the public school system of the cities, inviting us, to be represented; second, the commercial bodies to give financial support to their desires and then any other subordinate bodies.

Most of the invitations came in rather informal fashion. They had to be overlooked, or set aside, with the result that they narrowed down to two cities, and we are now waiting for those proper invitations to be completed, and we can hardly make a definite report at this moment. It may be in one hour or two we shall get the necessary information, and it may not be for a week, but we can't positively say at this moment where we are going to meet next year.

PRESIDENT DUTCH: We will pass to New Business. Some necessary changes in the constitution and by-laws have been suggested but before they can be acted upon adequate notice must be mailed to the members. We can't at an annual meeting get this under way, so during the year it is hoped the changes will be presented to you in proper contsitutional form. The President is empowered to appoint members to the Federated Council on Art Education. It was unnecessary to have the suggestion from the Secretary of that Association, Mr. Winslow, to satisfy myself on the score that until work which is under way is done to the satisfaction of the people working upon it, we should keep our group intact. The Secretary requested it, but I had it in mind. As far as I can see, Miss Bess Eleanor Foster would be the member that by rotation would be appointed, so I am appointing Miss Bess Eleanor Foster to serve again for a period of three years on the Federated Council of Art Education. Request comes from the Secretary of that group for the appointment of three alternates in the event our three regular delegates are unable to attend. I would appoint Miss Foster's alternate, Miss Lillian Weyl,

director of Art, Kansas City; for William G. Whitford of Chicago, Mr. Otto Ege, of the Cleveland Art School; for Miss Scovel, I would like to appoint as alternate William H. Vogel, Director of Art at Cincinnati.

From the floor, do I hear any introduction of new business? If not, we come to No. 10, which is stated as Adjournment.

MR. BEDELL: I had a job this last few months in this Association as Chairman of the Program Committee, which I inherited due to a certain office to which I was elected. I was not aware of that until after I was duly elected. I have had a considerable amount of contact with Harry E. Wood. We don't need to go around patting each other on the back; I know we are kind of a little family, but I think it would be altogether lacking if this group, Mr. President, does not give a specific acknowledgement of the work that Harry E. Wood has done to make our stay and convention in Indianapolis as wonderfully pleasant as it has been. Therefore, Mr. President, I move this Association give a rising vote of thanks to Harry E. Wood, of Indianapolis.

MR. VOGEL: I would like to add to that, in seconding that motion, that Mr. Wood has done a Herculean piece of work. Never in the history of our organization has one had the responsibility on his shoulders which has fallen on his shoulders this time. He has taken up another man's work and taken up the entertainment of the organization at the same time,two very severe responsibilities, and he has done them I think as no other man could have done.

I take great pleasure in seconding Mr. Bedell's motion.

. . . The audience arose and aplauded. . . .

MR. WOOD: I certainly appreciate the high compliment. There is one danger I see about having this double duty job. I am afraid people will think I am old because when people get old they take up golf or something of the kind. I will have so much time left over from my regular work after this convention is over, I am sure I will have to take up golf to pass off the time. That is the only danger I see. I thank you for the compliment.

ADJOURNMENT—10:50.

Report of Secretary

AFTER three years of service to the Association as Secretary-Treasurer, Raymond T. Fell resigned September 1, 1927, turning over to the present incumbent, Harry E. Wood, all records, money and equipment belonging to the Association. It was the middle of January before the transfer of the office was completed and the new Secretary has experienced considerable difficulty in regaining time lost in the transfer.

During the past few years, our Association has had a miraculous growth in membership. In assuming the Secretarial responsibilities, the new Secretary felt that the methods of handling the records had not kept pace with the growth of our organization and therefore, some radical changes have been made. Chief among these changes has been the system of recording memberships. Cumulative record cards have been inaugurated so that at a glance, one can tell for what year or years dues have been paid. These cards are made out in duplicate, one being filed alphabetically and the other by states. Some confusion has been caused in the transfer of the records to the new cards but now that the transfer has been completed, a permanent cumulative record is maintained.

Due to the multiplicity of details occasioned by the taking up of a new work, some phases of endeavor have not been handled as efficiently as they can be in another year.

The transfer of the records so late in the year made it impossible to solicit advertising for the Bulletins until after the first of the calendar year. As a result, the income from this source has been lowered this year since many advertisers had made up their budgets prior to January 1st.

Likewise, there was a loss in membership fees, because of the fact that last year no notices of memberships due were sent out to members who did not attend the Des Moines meeting. After this situation had been discovered, a multigraphed letter was sent to all delinquent members. Unfortunately, because this came so close to the time of the 1928 meeting, many persons believed it to be the 1928-29 dues that were being collected.

Just ten days after the 1928 convention was over a letter personally addressed was sent to the members who failed to register at the convention, reminding the one to whom the letter was addressed that he or she had been missed at the convention and that membership fees were then due, and that the Year Book containing all the addresses made at the convention would not be sent to those in arrears. This letter brought in many membership renewals.

Your Secretary, as Chairman of the Editorial Board, has made an effort to embody in the Bulletins some of the design principles taught by our members. Reports received would indicate that the membership as a whole is pleased with the results of the effort to make pages well balanced in tone and content.

While the Auditor's report shows that the former Treasurer's books balance, a number of slight discrepancies exist in details of the report. Certain expenditures far exceeded the amount set forth in the budget and the amounts set forth in the reports in some cases do not tally with each other or with the budget. This has led to the installation of a different system of bookkeeping so that in the future a more accurate record of expenditures can be kept. The

failure of the former Secretary to collect dues after the close of the 1927 convention and the inability of the new Secretary to secure advertising due to tardy solicitation, coupled with the fact that quite a number of bills incurred during 1927 were left over to be paid out of 1928 funds, has resulted in a heavy drain on the Treasury, but thanks to the efficient manner of handling the Material and Equipment Exhibits at the 1928 convention, Mr. Gossett, Manager of the Exhibits Committee, succeeded in making up losses in other departments and has turned over more money to the Treasurer than has been received from any previous meeting, save one.

Secretarial minutes have been kept of all meetings of the Council and business sessions of the Association at large. The new system of keeping the Secretary's records will enable the Council members to see at a glance all business transactions of the Association, whether accomplished by letter or in meetings.

The budget approved by the Council for the year 1928-29 is as follows:

Budget

The following shows the budget for the year September 1, 1927, to September 1, 1928, and the budget approved by the Council, May 5, 1928, for the year September 1, 1928, to September 1, 1929.

Estimated Receipts

	1927-28	1928-29
Membership (900)	$1,800.00	$2,000.00
Advertising	1,200.00	1,500.00
Sale of Reports	50.00	60.00
Commercial Exhibitors	1,900.00	2,200.00
Interest on Certificate of Deposit	10.00	10.00
Miscellaneous	300.00	.....
	$5,260.00	$5,770.00

Estimated Expenditures

Printing	$2,500.00	$2,500.00
Badges	15.00	20.00
Program	1,000.00	1,200.00
Exhibit Committee	200.00	500.00
Editorial Board	200.00	200.00
President's Office	100.00	100.00
Secretary's Office	400.00	600.00
Secretary's Salary	300.00	500.00
Miscellaneous	350.00	150.00
	$5,065.00	$5,770.00

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Treasurer's Report for the Fiscal Year

September 1, 1927, to September 1, 1928

DISBURSEMENTS

Program	$ 655.41	
Secretary's Office	573.52	
President's Office	74.25	
Editorial Board	143.60	
Exhibit Committee	60.50	
Publications	2,631.46	
Membership Promotion	138.40	
Advertising	26.40	
Miscellaneous	267.48	
Secretary's Salary	300.00	
Convention	572.64	
Total Disbursements	$5,443.66	
Balance in Bank September 1, 1928	1,743.45	
Funds at Interest September 1, 1928	1,500.00	
		$8,687.11

RECEIPTS

939 Members—Dues	$ 939.00	
Bulletin Subscriptions	939.00	
29 Student Members	29.00	
Advertising	1,505.99	
Sale of 39 Year Books	39.00	
Sale of 4 Membership Lists	4.00	
Material and Equipment Exhibits	2,748.28	
Interest on Certificate of Deposit	10.00	
Miscellaneous Postage, Express, etc	15.81	
Unaccounted for from former Secretary	29.47	
Total Receipts	$6,259.55	
In Bank September 1, 1927	1,927.56	
Funds at Interest September 1, 1927	500.00	
		$8,687.11

Total Assets September 1, 1928	$3,243.45
Total Assets September 1, 1927	2,427.56
Gain in Assets	915.89

Constitution and By-Laws

Because of lack of space, the Constitution and By-Laws are omitted in this Bulletin. They are printed in full in the 1927 Year Book. Copies may be secured by members upon application.